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City of Fontana General Plan

October 2003





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Acknowledgements

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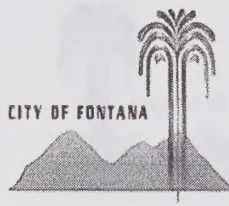
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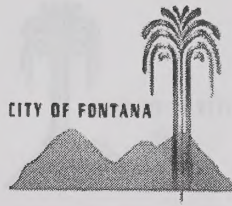


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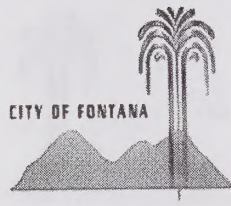
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Chapter 1

Introduction



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Chapter 1. Introduction

ABOUT THE CITY OF FONTANA

Fontana's history dates back to 1887, when our City's precursor, the townsite of Rosena was located in the area of our present-day downtown. A.B. Miller, an early agricultural landowner who figures prominently in our City's founding, rededicated Rosena as Fontana in 1913. Our area was widely settled by the 1930s, from Baseline to the Santa Fe Railway. Two other rural settlements, Grapeland to the north, and the Declezville quarry to the south flanked our community in those early years.

From the beginning, the development of Fontana radiated outward from our Downtown – this may be part of the reason it remains so important to us to maintain as the heart of the community today. The establishment of the Kaiser Steel Mill changed the character of our community from rural to industrial in 1942. The population and intensity of development in the community increased dramatically in the next decade, and the City incorporated as Fontana in 1952. Fontana is a General Law city under the Council/Manager form of government.

We have experienced waves of development since incorporation: industrial, residential and commercial, first radiating from the downtown within the core of the City, now radiating north from SR 210 and south and east from the core. Our economy has continued to diversify, with steel production playing less of a role since the 1984 closure of Kaiser Steel, and the development of the trucking and distribution industries. The northern portion of our community, including Grapeland, was agricultural in character and remained so until the beginning of the 1980s when residential development began to move northward. We are now the fastest growing community in the Inland Empire, with residential and commercial development continuing to move northward, due in part to the supply of vacant land there, and the access provided to it by the SR 210 freeway and Interstate 15. (See Figure 1-1 for a depiction of our City's Regional Location.)



The official seal of the City of Fontana depicts symbols of our community's history including Kaiser Steel, elements of our agricultural heritage including oranges, grapes and poultry ranches, and the mountains which are such an important part of Fontana's physical setting.



“ Fontana is Where
You Want To Be ”

*Mayor Mark Nuaimi, State of
the City Address, 2003*

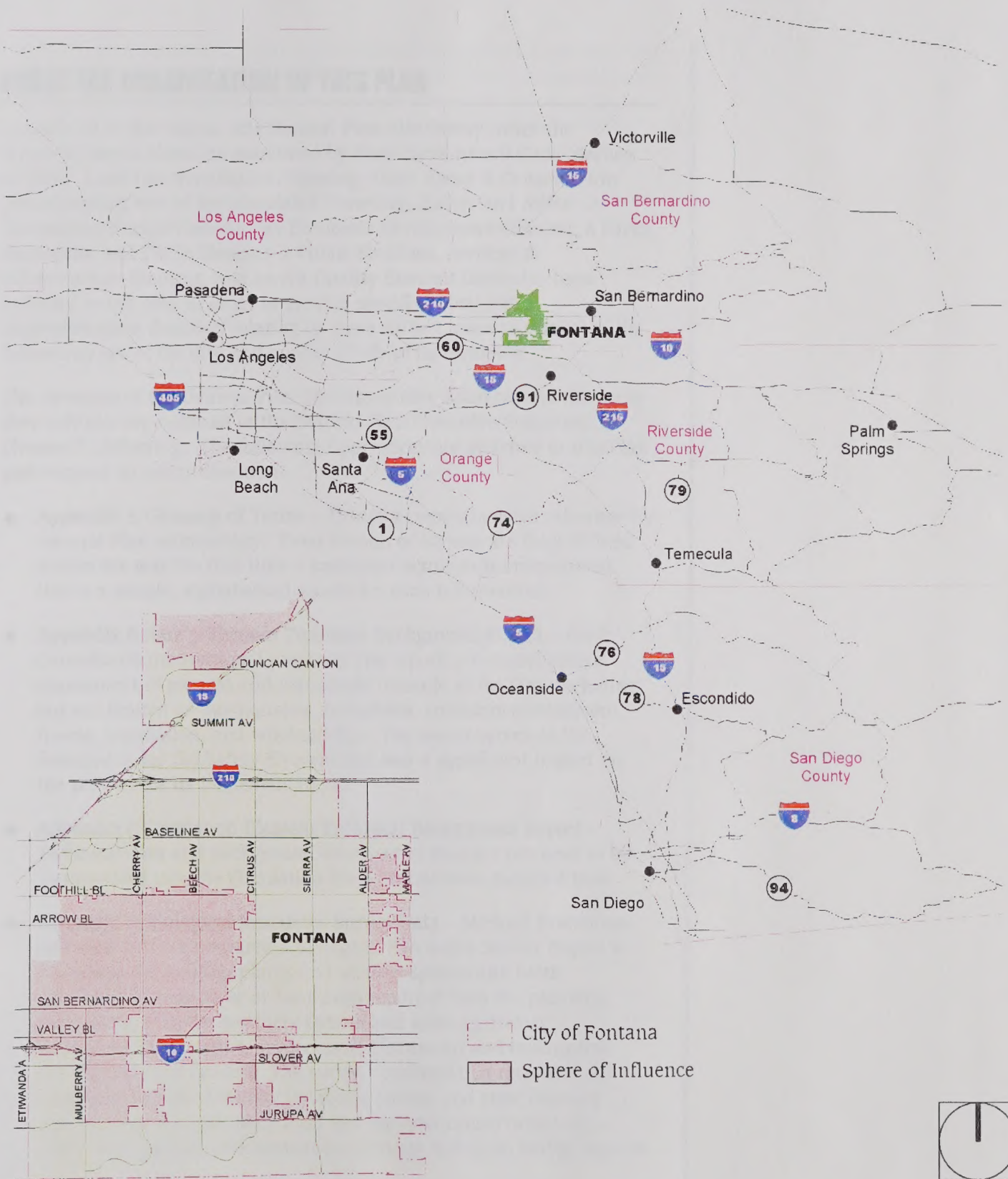
- ◆ We are located at a gateway to the Inland Empire from the north via Cajon Pass;
- ◆ We are a transportation hub served by two interstates, a freeway, and rail;
- ◆ We are home to 145,770 people (per statistics from the California Department of Finance, 2003), in an incorporated area encompassing over 36 square miles, with another 16 square miles in our sphere of influence; and
- ◆ We have a bright future ahead as our housing stock continues to diversify and attract a broad range of new residents here, our employment continues to grow, our public safety services continuously improve, retail and entertainment opportunities expand, and our downtown, city's parks and recreation services, roads and infrastructure benefit from continuous revitalization.

HOW THE GENERAL PLAN SERVES OUR COMMUNITY

A great many resources are spent on building our community. The most obvious, of course, is our City government and all the departments that make it up. But there is more. Several school districts, the County Flood Control District, the Inland Empire Utilities District and the water districts that serve our community are just the beginning of a long list of public, and quasi-public entities that also play roles in shaping our living environment.

The City of Fontana's General Plan can be thought of as its constitution, and blueprint for the long-range physical development of the City, addressing direct City services, as well as services and activities undertaken by allied entities in our community. The Plan is guided by a Vision Statement, which is included at the end of this Chapter, and was developed as a by-product of the community participation that shaped this Plan. The Vision serves as a unifying force for the Plan as well as its implementation. The Vision acts as a yardstick for our community against which we can measure initiatives and proposals and determine if they are or are not in concert with the long-range future potential of the City.

Regional Location





ABOUT THE ORGANIZATION OF THIS PLAN

In addition to the Vision, this General Plan also incorporates the following seven elements mandated by State Government Code (Section 65302): Land Use, Circulation, Housing, Open Space & Conservation (incorporating two of the mandated elements), Safety and Noise. A Community Design Element, an Economic Development Element, a Parks, Recreation and Trails Element, a Public Facilities, Services & Infrastructure Element, and an Air Quality Element have also been included in the plan in order to provide specific policy and implementation direction relating to these subject areas so critical to the future success of the City and quality of life of its residents.

The elements of the General Plan, the issues they address, and the goals they contain, are outlined in the General Plan Executive Summary, in Chapter 3, following. The following Appendices are attached to this Plan and support its policy direction:

- ◆ **Appendix A Glossary of Terms** – This is a comprehensive reference for General Plan terminology. Even though acronyms are fully defined within the text the first time a particular acronym is encountered, this is a simple, alphabetical source for such information.
- ◆ **Appendix B Safety Element Technical Background Report** – Earth Consultants International prepared this report, a comprehensive assessment of natural and man-made hazards in the City, including but not limited to: earthquakes, landslides, subsidence/settlement, floods, inundation, and wildland fire. The report serves as the foundation for the Safety Element and has a significant impact on the policies for its implementation.
- ◆ **Appendix C Circulation Element Technical Background Report** – Technical data and background information that did not need to be incorporated into the Circulation Element has been included here.
- ◆ **Appendix D Biological Resources Survey Data** – Michael Brandman Associates (MBA) prepared a Biological Resources Survey Report to document the existing plants and wildlife species and biotic communities that occur or have been reported from the planning area, along with the pertinent federal and state regulatory frameworks that exist to protect rare, threatened and endangered species and their habitat. The survey consisted of a review of the California Natural Diversity Database, federal and state resource agency reference materials, local and regional conservation plans, aerial photographs, and numerous previous biological survey reports.



along with field observations to confirm the spatial extent of biotic communities.

- ◆ **Appendix E Cultural Resources Technical Report** – CRM Tech's cultural resources overview study on the approximately 50-square mile area in and around the City of Fontana is documented here. The study included a historical/archaeological resources records search, historical and ethnohistorical background research, reconnaissance-level field survey, and consultation with the Fontana Historical Society.
- ◆ **Appendix F Structural Fire Risk Assessment** – Hunt Research Corporation's structural fire risk assessment for the City of Fontana is included here. The report identifies and classifies areas of varying structural fire hazard severity based upon age, condition, size, occupancy, and use of structures, spacing between them, fire flows, fire crew and equipment availability, response time, historical fire data and other pertinent information.
- ◆ **Appendix G Noise Data** – Technical data that did not need to be incorporated into the Noise Element has been included here. Information regarding studies, data collection, statistical projections, or relevant research is included here.
- ◆ **Appendix H Air Quality Data** – Technical data that did not need to be incorporated into the Air Quality Element has been included here. Information regarding studies, data collection, statistical projections, or relevant research is included here.
- ◆ **Appendix I Economic/Market Analysis** – Realty Research Associates prepared an economic/market analysis as part of this General Plan update, which included an analysis of the growth projections prepared for Fontana by the Southern California Association of Governments, an analysis and projection of economic growth in the City and absorption by land use, and an analysis of the retail potential for the City of Fontana.
- ◆ **Appendix J Fiscal Impact Report** – This documentation describes and analyzes the fiscal implications for the General Plan. The Report analyzes the fiscal impacts of existing development in the City, as well as the impacts of the potential new development remaining to be added in the City.
- ◆ **Appendix K Public Survey Results** – During the early stages of this planning effort, a public opinion survey was conducted involving Fontana residents and business owners. The purpose of this survey was to assess residents' and business owners' attitudes concerning growth and related issues in the City.

- ◆ **Appendix L Matrix of General Plan Action Items** – This appendix details the major implementation commitments associated with the General Plan. The matrix is a compilation of the actions contained in each General Plan Element, derived from the policies in each element. These action commitments respond to the intent of the California Government Code that implementation is a logical and necessary obligation of public policy. Since this program should be updated annually, it will be necessary to make sure that any reference to it is the current version.

SHAPING THE PLAN

The Vision of Fontana that follows in this Introduction to the General Plan is a result of community involvement through Visioning Workshops and community surveys, and through the participation of elected City Officials, the Planning Commission and City Department Heads. It is especially important to acknowledge the guidance, input and influence on the plan by the General Plan Advisory Committee (GPAC). The three primary methods used to shape this General Plan are detailed below:

- ◆ **Interviews with City Officials and Department Heads** – City Council members, Planning Commissioners, Department Heads and other key staff (a total of 16 persons) were interviewed at the start of this Update process. The purpose of the interviews was three-fold: 1) to provide an overview of the General Plan/Development Code update process; 2) to inform staff and elected officials that the consultant team would be out in the community conducting workshops and soliciting public input; and 3) to identify thoughts and visions for the future by the City's current leadership.
- ◆ **Community Outreach** – The Plan's community participation process was kicked off with an Open House and Introductory presentation describing the Update process in July of 2001. Three public workshops followed in September, October and November of that year. During those workshops, participants were asked to identify their likes, dislikes, and priorities for change/vision for the future of Fontana. Vision Workshops were held at Solario Elementary School, Southridge Elementary School, and Fontana High School. The output of these workshops was compiled and synthesized as part of the development of the General Plan Vision statement. The Vision was further refined by the GPAC at their meetings. Other community members provided input at public Focused Issue Workshops relating to Community Image in November of 2001, and Housing in December of 2001. The land use alternatives developed for consideration during the next phase of the Update process were also reviewed and



discussed by the public at a series of three workshops held in June and July of 2002.

- ◆ **General Plan Advisory Committee** – After the City publicly solicited applications, the selected 18-member committee began monthly meetings in September of 2001. The General Plan Advisory Committee met monthly for the entire life of the project, and reviewed and discussed products relating to the General Plan Update.
- ◆ **Community Survey** – To complement the other outreach efforts, residents and businesses were surveyed, in both English and Spanish, to identify their likes and dislikes, desires for the future, and their level of satisfaction with different aspects of their community and City services. A total of 450 residents were surveyed via telephone by professional interviewers. Telephone numbers were randomly selected by prefixes known to encompass the City. A total of 200 businesses were also randomly selected from a list of City Business License holders, and were interviewed by the team of professionals.

USING THE PLAN

Consistency

General Plan consistency is probably the single most important consideration surrounding the General Plan. Without consistency, there is little point to expending the time and money it takes to produce a Plan. Absent the requirement for consistency, General Plans in California were either not prepared, were not completed or were commonly ignored if they did exist. That is why the California Legislature, in 1972, enacted the law requiring that development projects must be found consistent with a local General Plan. It is why, sometime later, it also mandated internal consistency.

The concept of consistency entails two dimensions: 1) internal consistency within the General Plan itself; and 2) consistency of public improvement projects and private development projects with provisions of the General Plan. In other words, we must deal with both internal and external consistency. The discussion that follows seeks to clarify how these ideas are reflected in the Fontana General Plan.

As a basis for this discussion it is necessary to understand the basic structure of the General Plan. At the top is a statement of community Vision that expresses the aspirations of the City in the future. Within the several mandated and optional elements of the Plan (major policy topics) there are goals expressing a desired future condition about some issue

that is part of the topic. Policies, in turn, guide future decisions on this issue. Finally, actions are prescribed that are designed to carry out one or more policies. In some cases, as in the land use element, standards for various land use designations also represent a form of policy, reflected directly in map form. Similarly, circulation system roadway classifications do the same for arterial highways.

Internal Consistency

The essential question here is whether the provisions of the Plan are aligned in some common direction on behalf of the community, rather than being at cross-purposes. The test for this form of consistency can be thought of as operating from two perspectives: horizontal and vertical.

Horizontal consistency is the alignment of policies across all elements of the Plan toward a common purpose or end state. In other words, do they all move the community in a similar direction? This is a major area in which the City's vision comes into play. The test of commonality is whether a particular policy, standard or principle in the Plan contributes to rather than frustrates the achievement of the vision. The essential question is whether or not the policies are stated in ways that mutually reinforce the vision, looking across the entire subject range covered by the Plan.

It is also understood that there is a built in tension between the different mandated and optional policy topics under the law. There is an expectation that the Plan will promote housing and open space; jobs and shopping centers; vehicle movement and reduced noise and air pollution. As can readily be seen, some balancing of these and many other expectations that drive the Plan is essential.

Horizontal consistency is seen by looking **across** all elements of the General Plan. **Vertical consistency** is the alignment of vision, goals, policies and actions with each other, topic by topic, throughout the Plan. If one looks within each topic covered by the Plan, do all levels of direction on that subject reinforce each other?

Starting from the Vision, are there goals and policies within the Plan that respond to every dimension of the Vision? Are there actions that represent a commitment to carry out the Plan? This doesn't have to be a one-to-one relationship, but there has to be a logical connection "vertically" up and down the structure of the Plan.

Taken together, these two internal dimensions of consistency assure the community and its stakeholders that the parts of the Plan are in reasonable balance and that they will take the community toward the future stated in the Vision. In short, the Plan "adds up."



External Consistency

This aspect of consistency is a measure of the extent to which private development projects and public improvement projects actually advance the purposes of the Plan rather than posing obstacles to their achievement or even moving in a totally different direction. As with internal consistency, this determination requires a degree of judgment, although some situations are more clear-cut than others.

For example, a housing development proposed on land designated for open space dedicated to habitat preservation is clearly inconsistent. On the other hand, an auto related use proposed on land designated for light industrial may or may not be consistent, depending on the nature of the auto related activity. Auto sales would be consistent, but engine overhaul operations would probably not be.

Housing over a large portion of the City that is all of the same size, cost and quality would not be consistent because the Plan calls for a variety of densities and housing types to respond to the needs of varied households. But where does the line get drawn within which variety must be reflected? Must a 50-acre site contain varied housing or is it only an issue for sites, say, of 100 acres? That is where judgment inevitably must be applied and the local context for the proposed development may figure significantly in the conclusion.

Determinations of project consistency are reflected in staff reports and may result in project approval, project modification as a condition of approval, outright disapproval. In the latter case, the remedy is to seek a General Plan amendment.

Administration and Implementation

The State recognizes the dynamic nature of the General Plan and provides for periodic review of the document to ensure that it is consistent with the conditions, values, expectations and needs of the community. This is necessary because all development proposed within the community must be consistent with the General Plan and that is a key part of the project's analysis. The City annually prepares a General Plan Progress Report detailing the status of the general plan and progress in its implementation. The annual progress report assists the City of Fontana in determining the ongoing effectiveness of the General Plan and identifying necessary "course adjustments" to land use and environmental goals, policies and implementation measures. The State requires update of the Housing Element portion of the plan every five years.

The action items associated with policies in the Elements of this General Plan are compiled in matrix form in Appendix K. This appendix sets up a

process to be completed, expanded, and over time maintained by the City. This process will require completion of the implementation matrix described above, incorporating timing, status and responsible agency associated with each action item. The process also entails annually reviewing the Implementation Plan and updating it based on accomplishments achieved, work not yet completed, and new initiatives stimulated by changing conditions and circumstances.

Amendment

Amending the General Plan requires compliance with certain provisions of the State Government Code. Specifically this entails acting on no more than four amendments per year, under current law. The General Plan must be amended in the same manner as its original adoption: by resolution of the City Council upon recommendation by the Planning Commission.

A VISION FOR THE CITY'S FUTURE

The following draft Vision statement describes the desired future for Fontana in the next 20 years and beyond, as revealed through the General Plan update public outreach process.

The statement is summarized first, and then supported by a discussion in several topical areas that have helped to shape the Fontana General Plan and Development Code update. Both of these planning tools, especially the General Plan, provide unified policy guidance for the City officials and staff that will be responsible for maintaining the City's pathway to the Vision.

The City, however, cannot by itself realize the Vision. The Vision will require close collaboration among the residents of Fontana, private businesses, community leaders, school districts, and neighboring cities, to name a few. High standards administered by the City, ongoing public-private partnerships, and interactive and responsive communication will sustain Fontana's visionary course. In short, the vision can only be achieved if it motivates key stakeholders to persist in actions that carry out the policies in this plan. This must be a long-term commitment.

Fontana: One Community We're All Proud to Call Home

Fontana is a modern city benefiting from rapid growth while preserving its hometown atmosphere. Our City is unified by a strong sense of community and a common goal: to be second to none in achieving high standards of quality as we grow and develop. We take great pride in our safe and attractive residential neighborhoods, which are complemented



by recreational and educational facilities, and diverse and growing employment opportunities. Our Downtown and Civic Center district is the lively, thriving heart of Fontana. Our whole City is served by a network of efficient roads and infrastructure that connects us into a complete community in which we can live, learn, work and enjoy the fullness of life that Fontana has to offer.

What Makes Our Community Great?

Six dominant issues account for a major share of the energies required to reach this vision: Balanced Land Use, Economic Vitality, Character and Image, Downtown Fontana, Community Connectivity and Access, and our Citizens. The initiatives described below illustrate what it will take to make our vision a reality. This General Plan commits us to the task.

Balanced Land Uses

Fontana can be described as a live, work, shop, retirement and education destination – all of the functional uses needed to make up a complete community are here. People who work in Fontana have a reasonable choice to live in Fontana as well. The amenities we build and attract into our City, as well as the institutions we have here, and the infrastructure we provide, serve the needs of our current residents, attract new residents and attract employers who provide high paying jobs in our City.

- ◆ We will provide a broad range of new and infill-housing choices to meet the needs of our diverse residents at different stages of life and with a wide range of income levels.
- ◆ Parklands and open space will be acquired using creative and effective means, including using utility easements that run through our City.
- ◆ Recreation and community services will be provided for every segment of the population, particularly youth and seniors.
- ◆ We will promote the development of land uses to support culture and arts in the City, including those necessary for an all-city choir and all-city band.
- ◆ Our educational system, including facilities within all of the school districts that serve our community, will be recognized for its excellence.
- ◆ Institutions of higher education will be drawn here.
- ◆ We will support our school districts by ensuring that appropriate land, zoning and development standards foster the development of state of the art facilities.

- ◆ We will ensure the provision of designated land and supporting infrastructure to accommodate our desired economic vitality.

Our Economic Vitality

With a large amount of undeveloped land in its incorporated boundaries and sphere of influence, our City has many opportunities for developing its economy. We benefit from being located at a transportation hub within the Inland Empire, and we have a strong and growing economic base from which to diversify. Our industrial heritage goes back many decades, and we seek to build on that and find new opportunities in the emerging and ever competitive economy. Fontana should become the premiere location in San Bernardino County to establish a new business and expand current operations, becoming the home to thriving Fortune 500 companies as well as local and regional businesses. We also seek to be a retail and entertainment destination for our own residents and the region.

- ◆ The City's existing industrial and distribution base will be maintained while the economy is diversified by promotion of growth in other job-rich sectors.
- ◆ The City's competitive advantage, related to its proximity to rail, air and truck routes will be promoted and honed to further strengthen its appeal.
- ◆ Through job training efforts and job growth in targeted sectors, residents will be better skilled and have higher paying local job opportunities.
- ◆ Fontana's aging commercial corridors will be transformed into thriving boulevards providing first-class shopping and dining opportunities for all income levels and retail preferences, as well as mixed use development to avoid a marginal strip commercial pattern.
- ◆ As part of the City's economic development strategy, the development of private recreation opportunities to offset deficits in public parkland will be promoted.
- ◆ The Redevelopment Agency will build on and accelerate its successful track record of revitalizing aging and blighted areas of the City.
- ◆ Coordination will occur with digital service providers to ensure that Fontana's residents and businesses have access to state-of-the-art communications technologies.

Our Character and Image

Our community character encompasses our historic downtown, our City's historic neighborhoods and buildings, our more recently developing



residential areas in the northern portions of our City, our industrial and residential base in the southern areas of our City, as well as the natural assets that surround us in our environment. Our Vision recognizes that although different areas of our community are at different stages of life, they must all be woven into the fabric of our community if it is to continue to be successful. A large portion of our community is still vacant, with its future potential yet to be realized. A great deal of new development is being designed and built in north Fontana to contemporary development standards to serve the new population moving here. Much of the central core area of Fontana is made up of decades-old existing development with enormous redevelopment and infill potential. The southern portions of Fontana contain a mix of older and newer development and a range of land uses including residential, commercial, industrial and institutional uses, which must coexist in harmony.

- ◆ Though the developed areas in our City may not look alike, they will be unified and their character enhanced by consistently applied high standards relating to site design, signs, lighting and landscaping.
- ◆ When residents, workers and visitors enter our City they will know they are in Fontana because our major entryways are attractive and distinctive.
- ◆ Views of our City from freeway corridors will be attractive and reflect the pride we have in our City.
- ◆ Views from our City to the San Bernardino Mountains on the north and to the east, as well as the Jurupa Hills on the south, will be preserved for generations to come through judicious design of public spaces and private development projects.
- ◆ Our community will also be attractive because it is safe, and is perceived that way by the public.
- ◆ Our development standards and regulations will allow opportunities for creative forms of development that stimulate a sense of place here, including selective development that mixes residential, retail, entertainment and office uses.
- ◆ When development occurs within our sphere of influence we will collaborate with the County of San Bernardino to ensure consistent standards for development and code enforcement.
- ◆ Annexing areas presently in our sphere of influence will provide an opportunity to further unify residents of our City, contribute to the City's image, enhance our visual identity, and upgrade the physical road and utility infrastructure our residents depend on.

Downtown Fontana – The Heart of our City

While all of the districts of our City are important, the Downtown and Civic Center areas are the heart of Fontana. Our Downtown will continue to play an important role in the community life of Fontana residents and the area through its economic vitality and pleasant environmental qualities.

- ◆ Our downtown will provide a mixture of activities and services for both old and young, so that it is a significant, safe and inviting destination within our community and the Inland Empire.
- ◆ Residents and visitors will have easy access to our Downtown from the conveniently located transportation hub that is our Metrolink Station. They will also be able to move safely within Downtown, and to and from the many activities at the Civic Center, on foot or by bicycle.
- ◆ Vacant and underutilized lands adjacent to the Metrolink Station will be developed in urban uses that add vitality to our Downtown.

Connectivity and Access Within Our Community

Our City's strategic location within Southern California's transportation system is a major asset. We are positioned at a gateway into Southern California's economy and the Inland Empire from Interstate 15, and near a gateway to the world via our neighboring Ontario International Airport. Interstate 10 and Interstate 60, as well as State Route 210 also serve us. We can play an important role in linking to the critical goods movement system known as Alameda Corridor East given our City's level of rail service. We also benefit from a system of major north-south and east-west arterial highways. Our challenge is to maintain the connectivity throughout our community while crossing over our major east-west freeway corridors.

- ◆ Internal circulation corridors will be enhanced to take advantage of the City's proximity to major freeway and trucking routes, and mass transit systems, and to expand economic opportunities.
- ◆ Access to freeways will be enhanced and necessary facilities will be constructed and widened as required to promote the free-flow of traffic, especially where heavy truck traffic is involved.
- ◆ While our residents are proud of their own, distinct neighborhoods, they will also value the role that our open spaces, bikeways and trails play in connecting individual neighborhoods into the fabric of our entire community.
- ◆ Our major road corridors will be attractive and well maintained with consistent quality landscaping.



- ◆ Linkages will be created between north and south Fontana and new developments as the City further develops internally and expands its boundaries.

Our Citizens

Fontana's people will continue to be the most valued and greatest asset in our community. Our strength results from the participation of an informed citizenry in local government and community activities and service.

- ◆ We will continue to reach out to all segments of the community and publicize local government activities via cable television, newspapers, newsletters and the City's website, and will continue to make City documents and records available on-line as well as in printed form.
- ◆ Students and faculty in our schools will be involved in community and local government processes here.
- ◆ Neighborhood residents will be involved in ongoing neighborhood planning efforts as well as influencing citywide policy direction.
- ◆ We will facilitate the provision of digital networks in our community that will enhance many forms of communication here.



Chapter 2

Executive Summary



Chapter 2. Executive Summary

FONTANA: ONE COMMUNITY WE'RE ALL PROUD TO CALL HOME

The table included on the following pages provides a snapshot view of the issues and goals that are addressed in each element of the City of Fontana's General Plan. It can be used as a quick reference guide to the content of the General Plan. Policies and action items relating to each General Plan goal are included within the body of each element.



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General Plan Element	Issues/Goals
LAND USE ELEMENT	ISSUE #1: Balanced Land Uses How can the City ensure that land uses in the community are balanced between residential, non-residential, open space and public facilities, so that the broadest range of our residents' needs are met? Goal #1: Land Use in our community is balanced between residential, commercial, industrial, open space and recreational land uses that are developed to high standards of quality and provide diverse economic, social, and cultural opportunities for our citizens and those who wish to invest here. ISSUE #2: Land Use Compatibility How can we ensure that the diversity of land uses already developed in our community, and those still remaining to develop, support the quality of life of our residents and workers? Goal #2: Quality of life in our community is supported by development that avoids negative impacts on residents and businesses and is compatible with, and enhances, our natural and built environment. ISSUE #3: One Fontana: Unifying Our City How can we ensure that our community is physically and aesthetically unified, and has a consistent image and quality character? Goal #3: Our community is developing in a unified, orderly, logical, environmentally sound manner, which ensures that the City is unified and accessible to all residents, and results in economically sound commercial areas, vibrant neighborhoods, and jobs rich centers. ISSUE #4: Infill and Revitalization of Our Core Areas How can the City's core developed areas be revitalized by a careful mix of infill, revitalization, redesign and, where necessary, redevelopment? Goal #4: The quality of life and economic vitality in our City's core areas are enhanced by strategic infill of new development and revitalization of existing development.



General Plan Element	Issues/Goals
	ISSUE #5: Revitalizing Downtown How can the City's Downtown be reinvented so that it functions as a center for the community and attractive destination for residents and visitors? Goal #5: Our Downtown is a vibrant, pedestrian-friendly, economically healthy, safe, convenient and accessible district that serves as the true heart and focal point of the community.
CIRCULATION ELEMENT	ISSUE #1 Major Thoroughfares and Transportation Routes Goal #1: A balanced transportation system for Fontana is provided that meets the mobility needs of current and future residents and ensures the safe and efficient movements of vehicles, people and goods throughout the City. ISSUE #2 Public Transit, Terminals and Intercity Transportation Goal #2: A regional network of multi-modal transportation facilities including an improved citywide public transit system is provided that ensure the safe and efficient movement of vehicles, people and goods throughout the City of Fontana and to and from the region, and provides mobility to all City residents and helps reduce vehicular trips City-wide. ISSUE #3 Trucks Goal #3: A circulation system is provided that reduces conflicts between commercial trucking, private/public transportation and land uses. ISSUE #4 Railroads Goal #4: Rail facilities continue to develop while minimizing the impacts to land uses and arterial circulation.

General Plan Element	Issues/Goals
HOUSING ELEMENT	
	Goals
	Goal #5.1 Encourage the provision of a wide range of housing by location, type of unit and price to meet the existing and future needs of Fontana residents.
	Goal #5.2 Promote equal opportunity for all residents to reside in the housing of their choice
	Goal #5.3 Increase the supply of sound housing at prices affordable by all segments of the community through the rehabilitation of substandard housing units.
	Goal #5.4 Maintain the supply of sound affordable housing in Fontana through the conservation of the currently sound housing stock.
	Strategies
	Strategy #1 Rehabilitation and Preservation of Single-Family Housing Stock
	Strategy #2 Revitalization of Multi-Family Housing Stock
	Strategy #3 Provide Assistance for Affordable Homeownership
	Strategy #4 Expansion of Affordable Housing Through New Construction
	Strategy #5 Affirmatively Further Fair Housing to Ensure Equal Access to Housing
	Strategy #6 Provide Support and Shelter to Homeless and Non-Homeless Special Needs Populations
	Strategy #7 Facilitate Energy Conservation Opportunities



General Plan Element	Issues/Goals
	Strategy #8 Remove Governmental Constraints to the Production of Affordable Housing
COMMUNITY DESIGN ELEMENT	
	ISSUE #1: Design Theme for the City How can Fontana establish a unifying design theme while still encouraging diversity within sub-areas of the City? Goal #1: Our City has a unified overall community image and appearance with distinct districts and neighborhoods.
	ISSUE #2: Open Space: Views and Use How can the City best preserve and incorporate view corridors into its design guidelines? Goal #2: We preserve and use our open spaces as recreational amenities, visual boundaries and view corridors.
	ISSUE #3: Enhanced Arterial Corridors How can the appearance of major arterials that cross Fontana be improved? Goal #3: The major arterial thoroughfares of the City contribute to the overall image and diverse character of the community.
	ISSUE #4: Downtown Revitalization What type of downtown revitalization would best serve the residents of Fontana? Goal #4.1: We have a vibrant, identifiable downtown that serves the diverse needs of its residents and readily attracts visitors. Goal #4.2: Our revitalized downtown incorporates a new Civic Center Campus, existing notable architecture, enhanced pedestrian amenities and cultural centers.

General Plan Element	Issues/Goals
	ISSUE #5: Guiding New Development
	How can Fontana insure that new development will contribute to the overall image of the City while at the same time incorporating high quality, site-specific design features?
	Goal #5.1: Existing and new development reflects extensive use of high-quality, contemporary design, incorporating unifying, community-wide design elements. Goal #5.2: Neighborhood organization and design reflect diverse and high quality development standards, strong integration into the broader community, and energy-efficient environmental siting standards. Goal #5.3: Activity centers, including shopping centers, contain a high level of pedestrian amenities, distinct and varied architectural details, and careful integration into surrounding residential areas.
	ISSUE #6: Land Use Compatibility
	How can the City reduce land use conflicts that result at the interface of residential, commercial and industrial zones?
ECONOMIC DEVELOPMENT ELEMENT	Goal #6:
	Conflict and spillover effects at the interface of differing land uses are minimized with appropriate design standards.
	ISSUE #1: Balanced Land Uses a Diverse Economic Base
	How can the City ensure a fiscally healthy balance of residential, commercial and industrial land uses?
	Goal #1:
	A sustainable balance of residential, commercial and industrial uses supports our City's economy.
	ISSUE #2: A Diversified Industrial Base
	How can we build, improve and diversify the industrial base within our City?
	Goal #2:
	Fontana's industrial/manufacturing employment base is expanding and diversified.



General Plan Element	Issues/Goals
	ISSUE #3: Revitalized Downtown How can we most successfully revitalize Fontana's downtown? Goal #3: Our downtown promotes civic pride and provides ample opportunities for shopping, entertainment, recreation and community events, as well as "close-in" residential development.
	ISSUE #4: Education, Job Training and Placement How can our City best strengthen its workforce through education, job training and job placement? Goal #4: Our City, independently and in collaboration with school and community college districts, provides a comprehensive education, training and job placement program to develop and maintain a competitive workforce.
	ISSUE #5: Expanded Commercial Uses How can the City attract an optimum mix of retail and service commercial uses? Goal #5: Expanded commercial development at key locations throughout the City serves the needs of the community and captures earlier revenue losses to surrounding areas.
	ISSUE #6: Redevelopment Project Areas How can the City's redevelopment powers be used to most effectively sustain economic development? Goal #6: The City's Redevelopment Project Areas are fiscally sound and contribute significantly to the community's economic vitality, public safety, and the creation of its infrastructure.
	ISSUE #7: Economic Development Strategic Planning How is the City planning for its Economic Development in the future? Goal #7: Fontana's Economic Strategy continues to succeed in strengthening and diversifying our economic base, stimulating economic vitality, and making the City a net importer of dollars.

General Plan Element	Issues/Goals
PUBLIC FACILITIES, SERVICES & INFRASTRUCTURE ELEMENT	ISSUE #1: School Capacity and Enrollment How can adequate school capacity be provided as our student population increases? Goal #1: High quality schools with adequate physical capacity are provided in all areas of our City.
	ISSUE #2: Law Enforcement and Fire Protection How can our City continue to improve its police and fire protection services? Goal #2: Our law enforcement and fire protection services meet our population's public safety needs and contribute to a sense of safety and high quality of life in our community.
	ISSUE #3: Library, Civic Center and Civic Auditorium How can our City best provide for civic functions, library services and performing arts capabilities? Goal #3: Our new civic center campus, along with the new Fontana library, fulfills its vision as a multi-use community focal point, providing civic, educational, entertainment and cultural uses.
	ISSUE #4: Health Care Services How can our City improve the provision of health care services for all segments of the community? Goal #4: Health care services in our City are accessible and comprehensive, meeting the needs of all segments of the population.
	ISSUE #5: Infrastructure Quality and Reliability How will our City continue to provide adequate and high quality infrastructure to serve existing and future residents? Goal #5: Careful planning ensures the timely, logical and cost-effective development of infrastructure facilities in our City.



General Plan Element	Issues/Goals
	ISSUE #6: Wastewater Treatment
	How can our City best manage its wastewater?
	Goal #6: Our City manages its wastewater in an environmentally sound and cost-effective manner.
	ISSUE #7: Reducing Solid Waste
	How can the City best continue to reduce the amount of its solid waste and dispose of it?
	Goal #7: Our City has one of the most effective solid waste reduction and recycling records in the County.
	ISSUE #8: Improving Flood Control Facilities
	How can our City most effectively finance and complete its flood control system?
	Goal #8: Our City's flood control and drainage system is equitably financed and offers exceptional protection of lives and property over a full range of minor to major floods.
	ISSUE #9: Public Utilities
	How can our City best be served by public utilities that offer reasonable cost and state-of-the-art services?
	Goal #9: Public utility companies provide contemporary levels of service in our community at competitive rates.
	ISSUE #10: Enhanced Communication Technology
	How can our City build an integrated telecommunications network that links homes, business, schools and local government?
	Goal #10: Our City uses the latest in communication technology to conveniently link homes, businesses, schools and public facilities to a dynamic community Intranet.

General Plan Element	Issues/Goals
OPEN SPACE & CONSERVATION ELEMENT	ISSUE #1: Preservation of Natural Open Space How can the City best preserve environmentally sensitive, natural open spaces in the planning area? Goal #1.1: Preserve Natural Open Space in the San Gabriel Mountains and Jurupa Hills Goal #1.2: Conserve Natural Habitat and Protect Rare, Threatened and Endangered Species ISSUE #2: Planning for Mixed-Use Open Space How can the City best use mixed-use open spaces such as utility corridors, easements, flood control channels, detention basins, quarries and agricultural lands for recreational and other open space purposes? Goal #2.1: Provide public access to and allow joint recreational use of utility corridors, wherever feasible. Goal #2.2: The quality of life and economic vitality in our City's core areas are enhanced by strategic infill of new development and revitalization of existing development. ISSUE #3: Water Resources How can the City best conserve and prevent pollution of its water resources? Goal #3.1: Maximize efficient allocation and water resource use for existing and future water consumers. Goal #3.2: Protect water resources in the planning area from urban runoff and other potential pollution sources.



General Plan Element	Issues/Goals
	ISSUE #4: Cultural Resources How can the City best preserve its cultural resources—historic buildings and sites and archaeological areas? Goal #4.1: The City will seek to identify and inventory all historical and archaeological resources within the City boundaries and its sphere of influence. Goal #4.2: The City will encourage and support the preservation, rehabilitation, and/or restoration of historical and archaeological resources within the City boundaries and its sphere of influence. Goal #4.3: The City will seek to integrate preservation of historical and archaeological resources into economic development strategy. Goal #4.4: The City will seek to increase public awareness and enjoyment of Fontana's heritage.
PARKS, RECREATION & AND TRAILS ELEMENT	ISSUE #1: Parks for Diverse Needs How can the City ensure that its parks and recreation facilities respond to the diverse and changing needs of its population? Goal #1.1: Our city's parks and recreation facilities meet the diverse needs of all segments of our population. Goal #1.2: Our parks and recreation programs incorporate the latest recreational features, responsive to population trends and citizen input. ISSUE #2: Park Planning in Newly Developed Areas What should the City do to ensure that newly developed areas meet or exceed existing park standards? Goal #2: Adequate parks, recreation facilities and after-school programs are provided in newly developed areas of our City.

General Plan Element	Issues/Goals
	ISSUE #3: Park Safety and Maintenance
	What can the City do to ensure that its parks and recreation facilities are as safe and well - maintained as possible?
	Goal #3: Our parks will be safe and well-maintained.
	ISSUE #4: Joint-Use Agreements with School Districts
	What is the most efficient way for the City and local school districts to develop joint-use agreements for recreational facilities?
	Goal #4: Our parks are developed in conjunction with school facilities and other agencies to maximize recreational facilities in our City.
	ISSUE #5: Park Accessibility
	What can the City do to ensure that parks are conveniently located and accessible to all segments of the population?
	Goal #5: Our parks and recreational facilities are conveniently located and accessible to existing and future residents of our City.
Trails, Bikeways and Links	ISSUE #1: Supporting Bicycle, Equestrian and Pedestrian Use
	How can the City most effectively support bicycle and trail use?
	Goal #1: There is extensive use of non-motorized transportation, such as bicycles, equestrian, and pedestrian activity, throughout our City for recreation, access to community facilities, and even local commuting.
	ISSUE #2: Connecting Trails to the Region
	How can the City most effectively link its trail network to the regional system of bikeways and multi-use trails?
	Goal #2: Bicycle and trail systems are connected to neighboring city facilities and to the regional network of trails and bikeways.



General Plan Element	Issues/Goals
	ISSUE #3: Trail Maintenance How can the City best maintain its trail system to high standards without undo strain on the General Fund? Goal #3: Proper design, development and maintenance standards for bikeways and trails are used for all trails and bikeways within our City.
	ISSUE #4: Safe Trail Use What should the City do to ensure that its trail system is as safe as possible? Goal #4: Our City's bikeways and trails are uniformly safe and accessible.
	ISSUE #5: Use of Utility and Flood Control Corridors How can the City most effectively use utility easements and flood control channels to expand its trail network? Goal #5: Our system of bikeways and trails is benefited by efficient use of utility easements, flood-control easements and railroad rights-of-way.
	ISSUE #6: Funding Parks and Trails How can we fund our parks and trails program? Goal #6: Improvements to our parks and trails system are funded as a regular component of our capital improvement program along with a variety of sources both within and outside of the City.
	SAFETY ELEMENT
	ISSUE #1: Seismic Hazards What can the City do to minimize its seismic hazards? Goal #1: Injury and loss of life, property damage, and other impacts caused by seismic shaking, fault rupture, ground failure, earthquake-induced landslides, and other earthquake-induced ground deformation are minimized in our City.
	ISSUE #2: Geologic Hazards How can the City minimize its geologic hazards? Goal #2: The risk to life or limb, and property damage resulting from geologic hazards is minimized in our City.

General Plan Element	Issues/Goals
	ISSUE #3: Flood Hazards
	How can the City minimize the damage caused by flooding?
	Goal #3: Injury, loss of life, property damage, and economic and social disruption caused by flood and inundation hazards minimized in our City.
	ISSUE #4: Fire Hazards
	How can the City minimize the threat from urban and wild fire and provide adequate fire suppression for a fast growing city?
	Goal #4: Threats to public and private property from urban and wildland fire hazards are reduced in our City.
	ISSUE #5: Hazardous Materials
	How can the City provide a healthy environment for its residents and visitors, and minimize the potential for contamination from hazardous materials?
	Goal #5: The potential for hazardous contamination is reduced in our City.
	ISSUE #6: Disaster Response Planning
	What can the City do to be better prepared in the event of a disaster?
	Goal #6: Plans for emergency response and recovery from natural and urban disasters are prepared for our City.
NOISE ELEMENT	
	ISSUE #1: Noise and Land Use Planning Connection
	How can the City ensure that its sensitive areas and land uses are not subject to excessive noise?
	Goal #1: Our City protects its sensitive land uses from excessive noise through diligent planning.
	ISSUE #2: Noise and Transportation Connection
	How can the City reduce the effects of transportation-related noise on its residents/occupants?
	Goal #2: Our City has a diverse and efficiently operated ground transportation system that generates the minimum feasible noise on its residents.



General Plan Element	Issues/Goals
	ISSUE #3: Non-Transportation Noise and Land Use Connection How can the City ensure that its sensitive areas and land uses are not subject to excessive “spill-over” noise? Goal #3: Our City’s residents are protected from the negative effects of “spill over” noise in our community.
AIR QUALITY ELEMENT	
	ISSUE #1: Cost/Benefit of Improved Air Quality What is the cost/benefit of Improved Air Quality? Goal #1: Air quality improvements are achieved in our City while continued economic growth has been sustained.
	ISSUE #2: Air Quality and the Land Use & Transportation Connection (Reducing Vehicle Miles Traveled) How can the City promote emissions reductions through land use and transportation strategies? Goal #2: Our City has a diverse and efficiently operated ground transportation system that generates the minimum feasible pollutants.
	ISSUE #3: Energy Conservation and Emissions How can the City reduce emissions associated with energy consumption? Goal #3: A concerted effort to reduce energy consumption in our City results in reduced emissions.
	ISSUE #4: Particulate Emissions and Fugitive Dust How can the City reduce particulate emissions associated with the generation of fugitive dust? Goal #4: The minimum practicable particulate emissions are released in our City from construction and operation of roads and buildings.



Chapter 3

Land Use Element



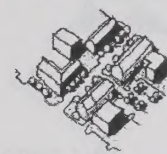


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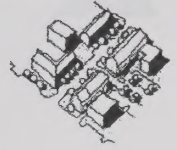
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Chapter 3.

Land Use Element

INTRODUCTION

Purpose and Contents of the Element

The City of Fontana Land Use Element focuses on the physical distribution of land uses within the City and its identified sphere of influence (that area which it ultimately envisions as within its incorporated boundaries). Specifically, it describes the long-range pattern and intensity of land uses within the City, and indicates the number of households, persons and amount of employment projected to be developed in the City at ultimate build-out. It also provides goals, policies and action items addressing a variety of land use related issues such as the balance of land uses in the community, land use compatibility, creating “one Fontana,” a unified City, infill and redevelopment, and revitalizing Downtown.

Relationship to Other Elements

The land use element is a driving element in a general plan, to which all the other elements relate. Because it sets out land use designations and pattern and intensity of land use, the land use element affects circulation, housing, public services and infrastructure, safety, conservation/open space, parks and recreation, noise and air quality. The land use element also establishes the primary basis for consistency with the City’s zoning code. It is important to note, however, that elements are equal in terms of the requirement to comply with their policies.



Other Land Use Regulatory Documents

The General Plan establishes the long-range direction, or blueprint, for the City. Several regulatory mechanisms are used to implement the General Plan on a day-to-day basis:

Specific Plans/Community Plans

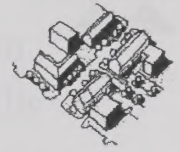
Specific plans provide more focused guidance and regulation for particular areas. They generally include a land use plan, circulation plan, infrastructure plan, development standards, design guidelines, phasing plan, financing plan, and implementation plan.

Fontana has 20 approved specific plans governing land use development in designated areas throughout the City. The majority of these Plans are built out or building out now. The Plans listed below are depicted on the community structure and land use plan graphics included in this Element, and can be obtained at the City of Fontana planning division.

Table 3-1
City of Fontana Approved Specific Plans

Number	Plan Name
1	Southridge Village
2	Rancho Fontana
3	Walnut Village
4	Rescinded
5	Southwest Industrial Park
6	Northgate
7	Rescinded
8	West End
9	Fontana Gateway
10	Rescinded
11	South Park
12	Hunter's Ridge
13	Empire Center
14	Rescinded
15	California Landings
16	Sierra Lakes
17	Westgate
18	Summit Heights
19	Coyote Canyon
20	Citrus Heights

The City has also approved five community plans. Community plans were used in the past to guide single family detached development in



Residential-Planned Community designated areas in Fontana, for projects less than 160 acres in size. The location of each of these plans is indicated below. Each is proposed to incorporate single-family detached residential development on 7200 square foot lots or larger.

- ◆ **Fontana Star Community Plan** – located in northwestern Fontana, bounded by Hemlock Avenue to the west, Beech Avenue to the east, and Walnut Avenue to the north.
- ◆ **Fontana Grandview Community Plan** – located east of Lytle Creek Road, north of Curtis Avenue and west of Knox Avenue.
- ◆ **Bellgrove II Community Plan** – located in northwestern Fontana, north and south of Walnut Avenue, west of Hemlock Avenue and immediately east of San Sevaine Avenue.
- ◆ **Centerstone at the Landings Community Plan** – located in northwestern Fontana, north of Baseline Avenue, west of Hemlock Avenue and immediately east of the future San Sevaine Avenue.
- ◆ **Morningside Community Plan** – located in northwestern Fontana, bounded by Cherry Avenue to the west, Walnut Avenue and San Sevaine Road to the north and east, and Baseline Avenue to the south.

The common theme between both types of plans is a customized and comprehensive plan that will yield a more desirable living environment than could be achieved with conventional zoning.

Zoning Code

Zoning is a primary mechanism for implementing the general plan, providing development standards, allowable uses, and other regulations that directly implement the general plan. Government Code Section 65860 requires zoning to be consistent with the general plan. The California Supreme Court, in *Leshar Communications v. City of Walnut Creek*, held that the general plan has primacy over zoning; in the court's words "the tail does not wag the dog." Fontana's Zone Code and associated Zoning Map have been updated in conjunction with this updated General Plan, ensuring the City a contemporary land use policy/regulatory system. The Zone Code and Zoning Map are available at the City of Fontana Planning Division, and on the city's website at www.fontana.org.

Subdivision Ordinance

Fontana's Subdivision Ordinance ensures that all subdivisions within the City are designed with the infrastructure necessary to support the proposed development, including road access, drainage, parks, school sites, utilities and related easements, and lot size and configuration.



Redevelopment Plans

Through redevelopment, cities have the power to turn blighted, deteriorating areas into revitalized, productive community assets. Fontana currently manages five redevelopment areas throughout its jurisdiction. These are the Downtown, Jurupa Hills, North Fontana, Sierra Corridor Commercial and Southwest Industrial Park project areas. See Figure 3-1, *Redevelopment Project Areas*, at right, for a depiction.

Annual Budget

The City's annual budget is the process by which City resources are committed over the ensuing fiscal year. It is an ongoing means of determining priority and reallocating resources according to anticipated near-term conditions. This is especially the case where the work entails a major project, such as overhauling the City's Municipal Code, or involves retaining consultants or specialists to augment the staff. This aspect of budgeting complements the "hard" implementation improvements reflected in the Capital Improvement Program, which is also part of the annual budgeting process.

Capital Improvements Plan

Fontana prepares a Capital Improvements Plan, which serves as a planning and budgeting mechanism for the major projects to be undertaken by the City. This Plan addresses projects for public works and infrastructure installation, maintenance and repair, parks and recreation services, and miscellaneous support services such as graffiti removal and street sweeping. The Plan must conform to the policy direction provided in the General Plan.

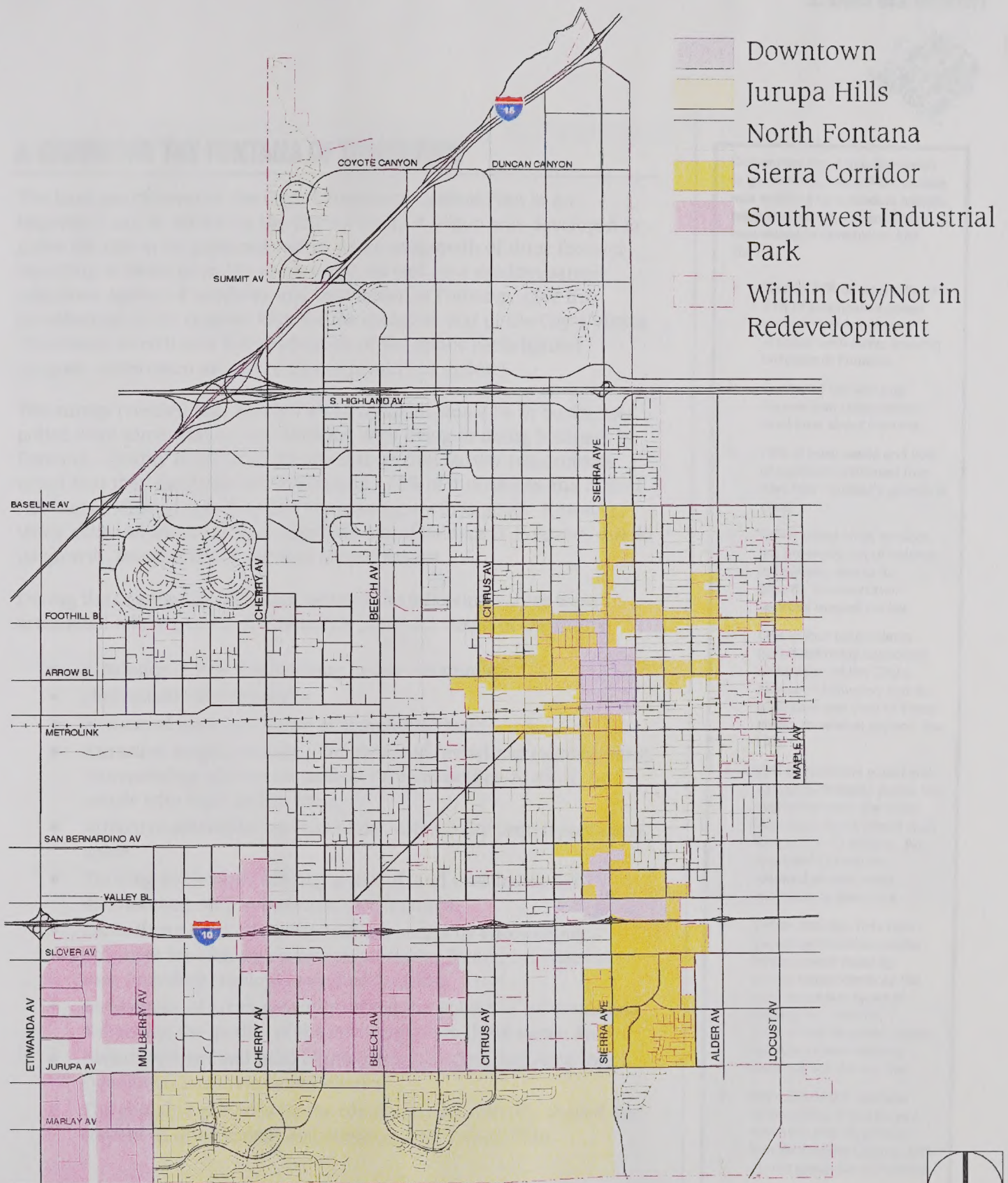
San Bernardino County General Plan

Cities are allowed to plan for unincorporated areas adjacent to their boundaries that are logical extensions of their future growth and good candidates for annexation. However, until annexation does occur, these lands, within the City's sphere of influence, remain under the governance of San Bernardino County and its General Plan. The City of Fontana's sphere of influence includes over 9700 acres. The boundary between the City and its sphere of influence is also depicted on Figure 3-1 *Redevelopment Project Areas*, at right.

Rialto Municipal Airport Plan

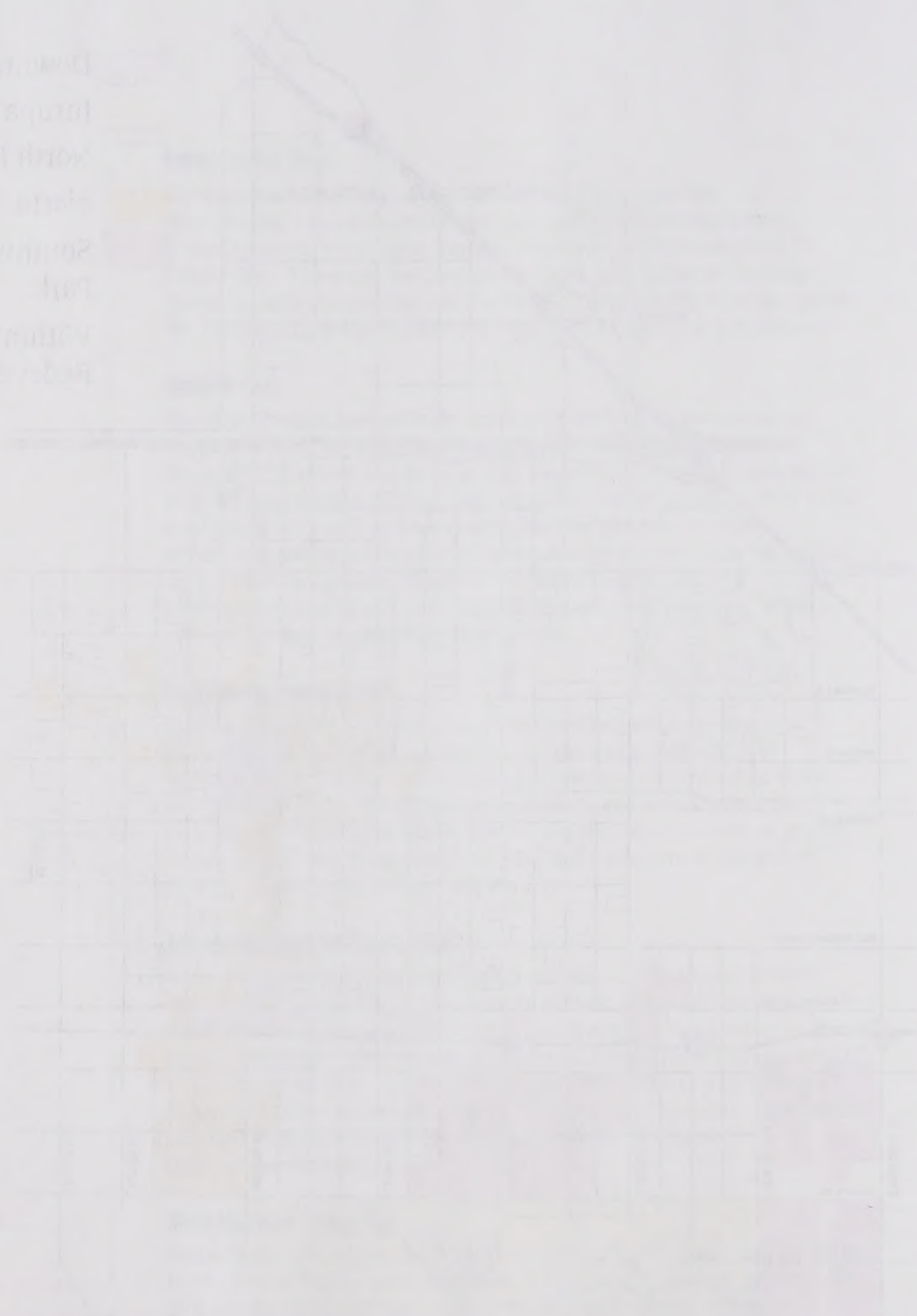
Rialto Municipal Airport, a general aviation airport owned and operated by the City of Rialto, is located west of the City of Fontana, between SR 210 and Baseline Avenue. In accordance with Federal Aviation Regulations, the guidance provided in the Rialto Airport Comprehensive Land Use Plan should prevail when development is considered within the airport's delineated safety zones.

Redevelopment Project Areas



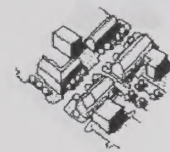
1" = 6,500'

Downtown
Lump's Hill
North Town
State Office
Southwest Industrial
Park
North District
Redevelopment



Map of the City of
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A VISION FOR THE FONTANA OF TOMORROW

The land use element of the City of Fontana's General Plan is an important tool in achieving the City's vision. A vision was developed to guide the City to its preferred future, as an outgrowth of three focused visioning workshops in the community, as well as a random sample telephone survey of residents and businesses in Fontana. (See the Introduction to the General Plan for the complete text of the City's Vision Statement, as well as a full description of the public participation program undertaken as part of this General Plan update).

The survey revealed that nearly 74% of residents and 81% of businesses polled were somewhat or very satisfied with living or doing business in Fontana. Quality of life was the one feature that survey respondents noted that they liked best about Fontana. 75% of businesses and 55% of residents indicated that they feel Fontana's growth is good. However, when asked what services are presently out of balance in Fontana, due to its growth, transportation services topped the list.

During the Community Visioning process the following values were articulated relating to the community's preferred vision of the future:

- A balance of jobs and housing in our community;
- High quality development;
- A sense of place and sense of community here;
- Attractive neighborhoods (both new and revitalized existing ones) incorporating residential product types appealing to all of the people who want to live here;
- Attractive amenities, such as parks, community centers and open space;
- Thriving boulevards offering a mix of land uses instead of deteriorating strip commercial development;
- Capitalizing on our freeway and rail access by encouraging attractive job-rich development in creative forms and mixes of uses including employee-oriented housing;
- Annexation of areas presently within our sphere of influence and enhancing the quality of the environment in those areas; and
- Redevelopment and infill in the core of the City, including the Downtown and Civic Center district.
- The guidance provided by the community has directly shaped the content of this Element and others in this General Plan.

Community input into the vision to guide this General Plan update was solicited by a random sample telephone survey of residents and businesses in Fontana in July 2001.

- Nearly 74% of residents and 81% of businesses polled were somewhat or very satisfied with living or doing business in Fontana.
- Quality of life was one feature that respondents liked best about Fontana.
- 75% of businesses and 55% of residents indicated that they feel Fontana's growth is good.
- When asked what services are presently out of balance in Fontana, due to its growth, transportation services topped the list.
- One in four respondents polled definitely supported annexation of the City's sphere of influence, and an additional one third of those polled somewhat support the idea.
- 69% of residents polled and 73% of businesses polled felt employers were the most important development type for the City to attract. An upgraded Downtown followed as next most important to residents.
- Senior housing, first-time buyers and middle-income housing were rated by survey respondents as the most important types of housing for Fontana, followed by detached homes and low-income housing rounding out the top five
- Eight out of ten business respondents to the survey indicated that they live in San Bernardino County; 53% of that group live in Fontana.



COMPONENTS OF THE PLAN: LAND USE DESIGNATIONS

All general plans require cities to specify land uses and intensity of development. Although not as specific as zoning classifications, general plans are required to describe each land use designation and include a diagram of the location of these uses. Both of these components are included in this section of the land use element.

Land Use Designations

Each of the land use designations, which are mapped on the City's General Plan Land Use map, are described below, along with either their specified density range (range of dwelling units permitted per acre) or intensity, expressed as allowable floor-area-ratio (ratio of building area to lot area, see Figure 3-2 below).

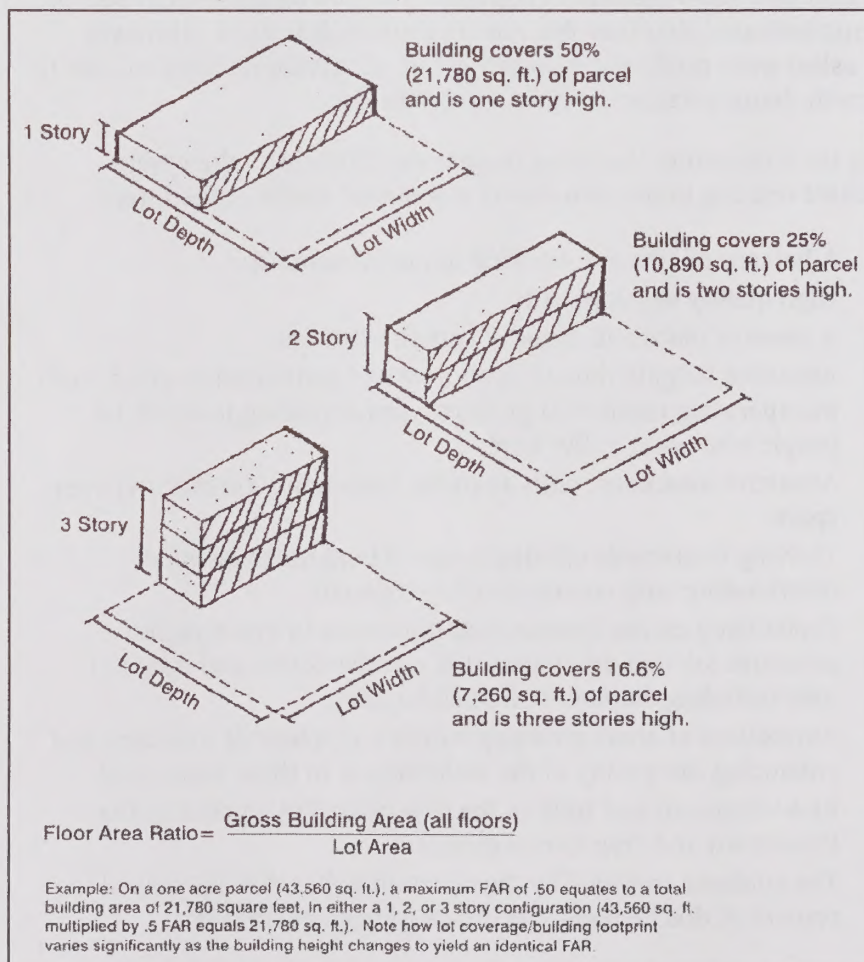
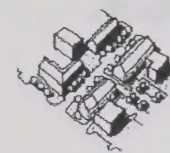


Figure 3-2 Ratio of Building Area to Lot Area



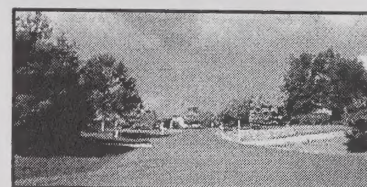
Actual density (residential uses) and Floor Area Ratio (FAR) (non-residential uses) ranges are determined on a parcel specific basis. Density and FAR are based on adjusted gross acreage, which takes out the area for collector streets and above, public facilities (excluding schools), and open space (excluding parks). To estimate adjusted gross acreage of a property, the General Plan uses the total gross acres multiplied by 70% (.7) to provide an approximate calculation.

Residential Designations

Residential Estate (R-E)

≤2 du/ac

- 1) This low-density designation reflects natural, environmental, and other constraints adjacent to the hillside areas in the community, as well as the lack of infrastructure in the area. Development in R-E areas is intended to evoke a rural feeling.
- 2) A minimum lot size of one half acre is required, however this may be increased in order to preserve hillside areas, depending on slope and geotechnical considerations.



Single Family Residential (R-SF)

2.1 - 5 du/ac

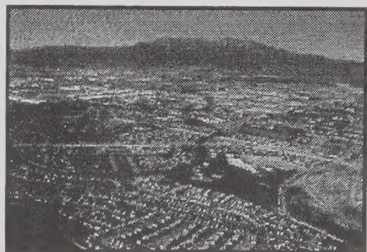
- 1) Typical suburban single-family detached residential development is intended in this designation.
- 2) 7200 sf average lot size must be maintained over any proposed development; the minimum lot size is 6000 sf.



Residential Planned Community (R-PC)

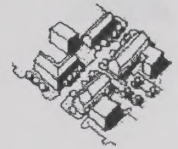
3.0 - 6.4 du/ ac

- 1) The intent of the R-PC designation is to provide for the managed growth of master planned communities offering a mix of residential housing types and amenities available for various economic segments of the population.
- 2) The designation recognizes approved single-family residential development areas within approved Specific Plans. Refer to those approved Specific Plans for additional detailed density information related to the R-PC designated areas.
- 3) The R-PC designation is also intended to accommodate development of new planned residential communities in Fontana either using conventional zoning or a Specific Plan (for projects of 145 acres minimum).





- 4) For projects of 145 acres minimum size (net), the following provisions apply:
- a. Single-family detached residential development is allowed by right, at densities from 3.0 to 4.7 du/acre, with a specific plan.
 - b. For single family detached residential development at densities between 4.7 and 6.4 du/acre:
 - i) The project must be adjacent to an activity center or major or primary highway as identified in the General Plan Circulation Element;
 - ii) The project must have mix of for sale residential product types including: single-family homes, condominiums, townhomes, and/or rental multifamily housing projects that contain at least 100 units with 25% usable open space;
 - iii) A specific plan must be prepared;
 - iv) The design of the community must encompass a variety of amenities to serve the project which may include, but are not limited to, the following:
 - 1) 25% open space,
 - 2) Trails and paseos,
 - 3) Child care facilities,
 - 4) Neighborhood/satellite community libraries,
 - 5) Fire stations,
 - 6) Golf courses,
 - 7) Fountains,
 - 8) Water features,
 - 9) Public art,
 - 10) Amphitheaters,
 - 11) Skate park and/or skateboard park,
 - 12) Community owned sports fields, courts, tot lots, putting greens, pools, lakes, recreation/community complexes, exercise trails, and dog parks,
 - 13) Public facilities/parks substantially in excess of that required by Quimby Act provisions
 - 14) Other amenities may include public facilities with a recognizable connection to the project, substantially in excess of minimum requirements.
 - v) If affordable housing is proposed for at least 20% of the units in the project, then per state law a density bonus of 25% will be granted, and a mix of for sale residential product types including single family homes, duplexes, condominiums, townhomes, and/or multi-family housing (projects that contain at least 100 units) is permitted. A specific plan must



be prepared. Overall average project density shall not exceed 8 du/ac.

- 5) For projects of less than 145 acres the following provision applies:
 - a. Single-family detached residential development at 10,000 sq. ft. minimum lot size is required.

Medium Density Residential (R-M)

5.1-7.6 du/ac for single-family detached product type;

7.7-12 du/ac for single family attached or multiple family product type

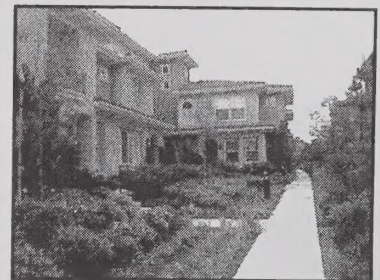
- 1) This residential category accommodates a range of housing types including multiple-family, single-family attached, and single family detached.
- 2) Intended for use near major arterial corridors and commercial and activity centers.
- 3) A 4,000 sq/ft minimum lot size is required for single family detached development.



Multi Family Residential (R-MF)

12.1 - 24 du/ac

- 1) Typical development in this residential category would include duplexes, condominiums, townhomes and apartments. If affordable housing is proposed for at least 20% of the units in the project, then per state law a density bonus of 25% will be granted, and a mix of for sale residential product types including single family homes, duplexes, condominiums, townhomes, and/or multi-family housing (projects that contain at least 100 units) is permitted. A specific plan must be prepared.
- 2) Multi-family units are intended to be located near activity centers such as commercial and employment centers, major community facilities, and arterial corridors.
- 3) In order to achieve density beyond the 12.1 range the design of the community must encompass a variety of amenities to serve the project on site which may include, but are not limited to, the following:
 - a. Child care facility;
 - b. Paseos and trails;
 - c. Community owned courts; tot lots, putting greens, pool, recreational complexes, exercise trail, dog park, lake, as well as skate park and/or skateboard park;
 - d. Fountains;
 - e. Water features;





- f. Public art;
- g. Amphitheater;
- h. Public facilities/parks substantially in excess of Quimby Act provisions;
- i. Other amenities may include public facilities with a recognizable connection to the project, substantially in excess of minimum requirements.

Commercial Designations

Community Commercial (C-C)

0.1- 1.0 FAR

- 1) This designation is intended to accommodate retail development including shopping centers, restaurants, and the like that serve the needs of Fontana residents.
- 2) Offices and businesses providing professional services, including legal services, financial institutions, administrative and corporate offices, medical offices and clinics are also permitted in these areas.
- 3) FARs at the upper end of this range are intended primarily for office type uses.

General Commercial (C-G)

0.1- 1.0 FAR

- 1) The C-G designation is intended for retailing, wholesaling, and service activities, including automobile dealerships and malls.
- 2) Offices and businesses providing professional services, including legal services, financial institutions, administrative and corporate offices, medical offices and clinics are also permitted in these areas.
- 3) FARs at the upper end of this range are intended primarily for office type uses.

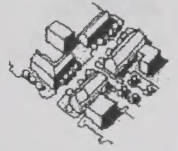
Regional Mixed Use (RMU)

0.1 - 1.0 FAR for non-residential; 12-24 du/acre for residential

Preferred Mix and Range of Uses: 10-30% retail; 5-15% office; 15-30% light industrial/business park; 25-35% residential; 4-6% public open space.

- 1) Areas designated Regional Mixed Use are intended as centers for employment generating commercial and industrial uses. The General Plan has identified six opportunity areas within Fontana where this type of development pattern can be accommodated.





- 2) Projects developed under the RMU category must be minimum 20 acres in size, except if proposed east of Sierra and north of SR 210.
- 3) Specific development types allowed in RMU include: research and development facilities, general commercial uses, corporate business parks, service business offices, light manufacturing, warehouse retail, entertainment centers, hotels and convention centers, professional business offices, day care centers, and public open space.
- 4) Residential development at the Multi Family density designation is permitted if the residential development is part of a project developed with a Specific Plan.
- 5) Warehousing and distribution facilities are not permitted in this land use category.
- 6) Distribution of uses within projects in RMU areas may deviate from the preferred mix and range of uses, depending on prevailing market conditions, so long as the most-case mix of uses is not exceeded, which would require supplemental environmental analysis.
- 7) This mix of uses can be accomplished: (1) as a combination of uses within a single structure, such as retail uses along the ground floor with residential or office uses on upper stories; or (2) as a combination of uses within a single parcel or group of parcels. The intent is to create vibrant activity centers where the function and design of uses are more integrated than in traditional single-use areas, which are oftentimes more isolated in nature.

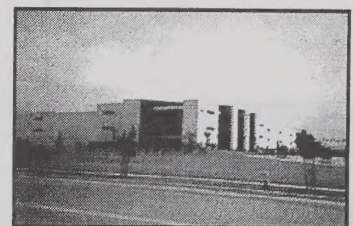


Industrial Designations

Light Industrial (I-L)

0.1-0.6

- 1) Development in I-L designated areas is intended to include employee-intensive uses, including business parks, research and development, technology centers, corporate and support office uses, "clean" industry and supporting retail uses, auto, truck and equipment sales and related services, and warehousing and distribution.
- 2) High quality development is encouraged in these areas, developed to more stringent design standards than for uses allowed within the General Industrial district.
- 3) Specific uses to be implemented within projects in I-L areas may be evaluated on the basis of their compatibility with adjacent land uses.





General Industrial (I-G)

0.1-0.6 FAR

- 1) Uses in this designation may include: manufacturing, fabrication, assembly, processing, trucking, warehousing and distribution, equipment, automobile and truck sales and services.
- 2) Specific uses to be implemented within projects in I-G areas may be evaluated on the basis of their compatibility with adjacent land uses.

Public Designations

Public Facilities (P-PF)

≤0.1 FAR

- 1) This designation identifies the locations of properties in public or quasi public ownership, such as existing schools; the facilities of public and quasi-public agencies such as the City, County water and sewer districts, and fire protection districts; and the locations of hospitals and quasi-public institutions.

Recreation Facilities (P-R)

≤0.1 FAR

- 1) The P-R designation is used for regional and local parks, and any recreational facility operated by a public or quasi-public agency.

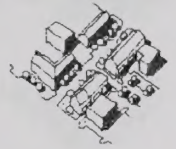
Public Utility Corridors (P-UC)

- 1) The P-UC designation is used to indicate locations in the planning area that contain easements for public utilities.

Open Space Designations

Open Space (OS)

- 1) Areas, which for environmental reasons have been planned to remain in a natural condition, including the Jurupa Hills and the foothills of the San Gabriel Mountains bordering the National Forest, have been designated OS. The character of these areas is to remain natural.
- 2) This includes areas which are in public ownerships and may have slopes of 20% or greater or be subject to wildfire.
- 3) Permitted land uses in OS designated areas include quarries, flood control channels, ground water percolation basins and agriculture. Only structures related to the management of resources are permitted.



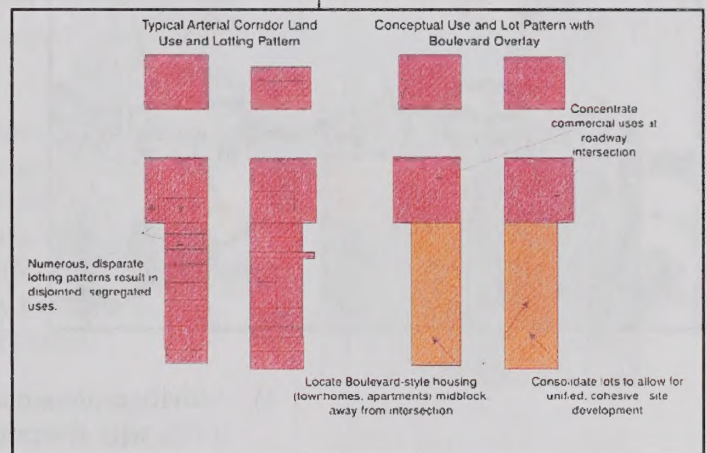
Overlay Designations

Boulevard Overlay

0.1– 1.0 FAR for non-residential uses;

7.7 – 24 du/acre for residential uses

- 1) The Boulevard Overlay is a flexible designation that is intended to apply, in conjunction with the underlying land use designations, on identified stretches of Foothill Boulevard, Arrow Highway, and Sierra Avenue.
- 2) The appearance and function of these major north-south and east-west boulevards is critical to the City's image and economic health. To ensure the long-term viability and attractive appearance of these boulevards, the intent of this overlay designation is to encourage retail activity to cluster at major intersections. In the stretches between the retail nodes, non-retail uses such as offices, services, incubator/multi-tenant uses, mixed use and residential development are the preferred uses.
- 3) Residential development at the Medium and Multi Family densities is intended to locate in mid-block locations that are not viable for commercial/activity center type development. A minimum lot size of six contiguous acres, and a minimum project size of 100 multi family units per project, is required for multi family development. Single-family residential development such as townhomes or other forms of "boulevard" style housing may also be developed at a density of 5 to 24 dwelling units per acre, and for projects less than six acres in size.
- 4) In order to facilitate the development transition along these corridors, incentives are provided to stimulate lot consolidation of small parcels and development of larger consolidated projects. The boundaries of the overlay designation are not precise: they can be adjusted to allow the development of projects of optimal size and configuration.
- 5) Specifically, this overlay seeks to:
 - a. Encourage focused commercial development at key roadway intersections;
 - b. Enhance flexibility in development by allowing for a complementary mix of higher density residential uses, professional offices, civic and institutional uses, and mixed-use projects that are compatible with those uses allowed by the underlying land use designation.





- c. Ensure compatibility between adjoining uses.
- d. Provide a critical residential mass to support corridor commercial uses.

Activity Center Overlay

0.1 – 1.0 FAR for non-residential uses;

7.7 – 24 du/acre for residential uses

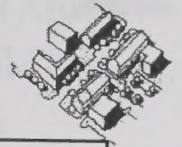
- 1) Activity Centers have been conceptually identified on Figure 3-4, General Plan Land Use. This depiction is not intended to indicate these centers' ultimate size or precise location.



- 2) The Activity Center Overlay designation is intended to stimulate the development of intimately scaled activity centers within areas planned for residential development from Baseline Avenue to the northern border of the City. Activity Centers are intended to accommodate a mix of land use types serving only their surrounding residential neighborhood.
- 3) Activity centers are generally located within a half-mile of potential users, allowing for a comfortable walking distance for most residents.
- 4) Activity centers may be networked by multi-purpose trails and bicycle trails, with the purpose of linkage, as well as providing alternative means of transportation. Centers may also be linked to other adjacent or nearby recreational open space or educational or community facilities.
- 5) Specific uses intended in these activity centers include: community serving retail commercial; professional offices, service businesses, entertainment centers, sales outlets, restaurants, day care centers, institutional, public and quasi public uses.
- 6) Residential development at the Medium and Multi Family density designations is permitted within this designation, if the residential development is part of a project developed under a Specific Plan.
- 7) The mix of uses should promote civic activity, define neighborhood character and provide focus, provide places for people to meet and socialize, and enhance an area's overall quality of life.

Downtown Overlay

- 1) The overlay's boundaries are Foothill Boulevard on the north, and Merrill Avenue on the south, Juniper on the west and Mango on the east.



- 2) This overlay designation is intended facilitate the future redevelopment and revitalization of the Downtown area.
- 3) More focused and detailed policy direction for the overlay will be developed by the City as a follow-on to the General Plan update process.

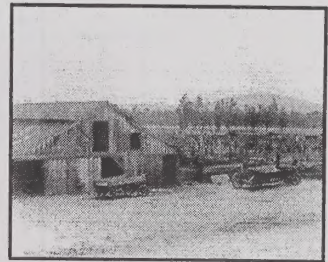
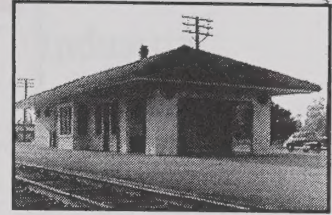
PHYSICAL AND LAND USE SETTING, CHARACTER AND GROWTH

The City of Fontana is set on an alluvial plain flowing southward from the confluence of Lytle Creek and the San Sevine wash. The San Bernardino and San Gabriel Mountains to the north, and the Jurupa Hills to the south, provide a dramatic backdrop for the developed areas of the City.

In the early 1900s, Fontana was a diversified agricultural community, producing major commodities such as citrus, grain, grapes, poultry, and swine. In 1942, the area began to transition to a more industrial base with the founding of the Kaiser Steel Mill. By the 1950s, Fontana was the region's leading producer of steel and steel-related products. Much of the steel required to support the United States' military build-up during World War II was produced at the Kaiser Steel Mill in Fontana.

Today, Fontana is both a bedroom community, with a commuting population of workers, and, due to its suburban location near several major freeway and rail transportation corridors, is also a major Inland Empire hub of warehousing and distribution centers. These uses are located primarily in the City's southern half, adjacent to the Interstate 10 corridor. There is also some concentration of these uses near Cherry Avenue and Baseline. Heavy industrial areas surround the former Kaiser Steel plant (now California Steel) within the City's sphere of influence, and along the I-10 corridor between Valley Boulevard and Slover Avenue. The California Speedway, a regional entertainment attractor, is also located within the City's sphere of influence, south of Foothill Boulevard, and west of Cherry Avenue. This venue attracts large crowds at the range of race events held there monthly, and particularly at the two NASCAR Indy events held there each year.

A range of residential neighborhoods has developed in the City. The established single and multi-family residential neighborhoods and commercial core of Fontana is largely contained between Baseline and Valley Boulevard. Newer residential development is occurring along the northern edge of the City west of the I-15 freeway, and radiating north and south of the SR 210 corridor. A large portion of Fontana, north of the SR 210 still remains to develop as a mix of planned communities and job centers. In fact, nearly a third of the acreage within the City and its sphere is vacant. Residential planned community development, together



This historic photograph provides a snapshot image of the City of Fontana's agricultural past.



with some planned industrial uses, makes up the majority of the existing developed land use between Jurupa Avenue and the southern boundary of the City.

The City of Fontana's incorporated area encompasses 23,455 acres, or nearly 37 square miles. The City's sphere of influence adds another 9,973 acres, or 15.5 square miles to the total planning area. The City's sphere of influence is bounded on the north generally by Foothill Boulevard, and encompasses roughly the western half of the City from Foothill Boulevard to the I-10 freeway, as well as large portions of the area between the I-10 and south to Jurupa Avenue. See Figure 3-3, *Community Structure*, for a conceptual visual depiction of the land use setting for Fontana's planning area.

Population & Employment Growth

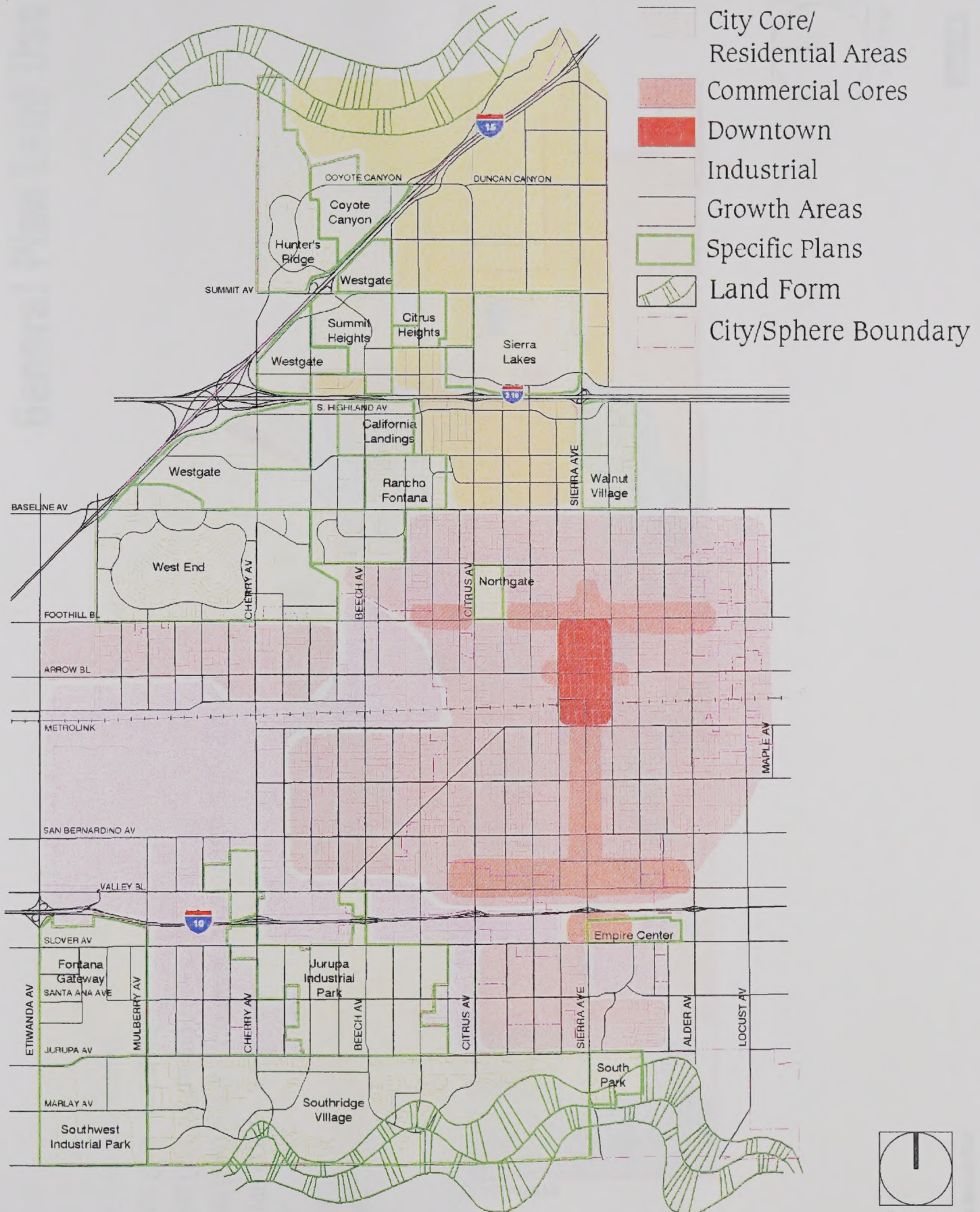
Fontana is a rapidly growing, dynamic community, and an increasingly powerful development center in the Inland Empire. The City experienced a 35% increase in population within its incorporated boundaries in the period between 1990 and 2001, growing from 87,535 persons to 135,100 persons. This is significant as cities west of Interstate 15 experienced a lower 29.8% gain during the same period. The City experienced another 8% gain, increasing to a population of 145,770, in 2003. Fontana's employment increased from 24,593 jobs in 1991, to 41,377 jobs in 2000. The City's yearly job growth in 1999 and 2000 far exceeded the job growth rate of the Inland Empire as a whole. At build-out the City's land use plan has the capacity to generate a 1.6 job-to-housing unit ratio.

LAND USE PLAN DESCRIPTION

Pattern of Land Use

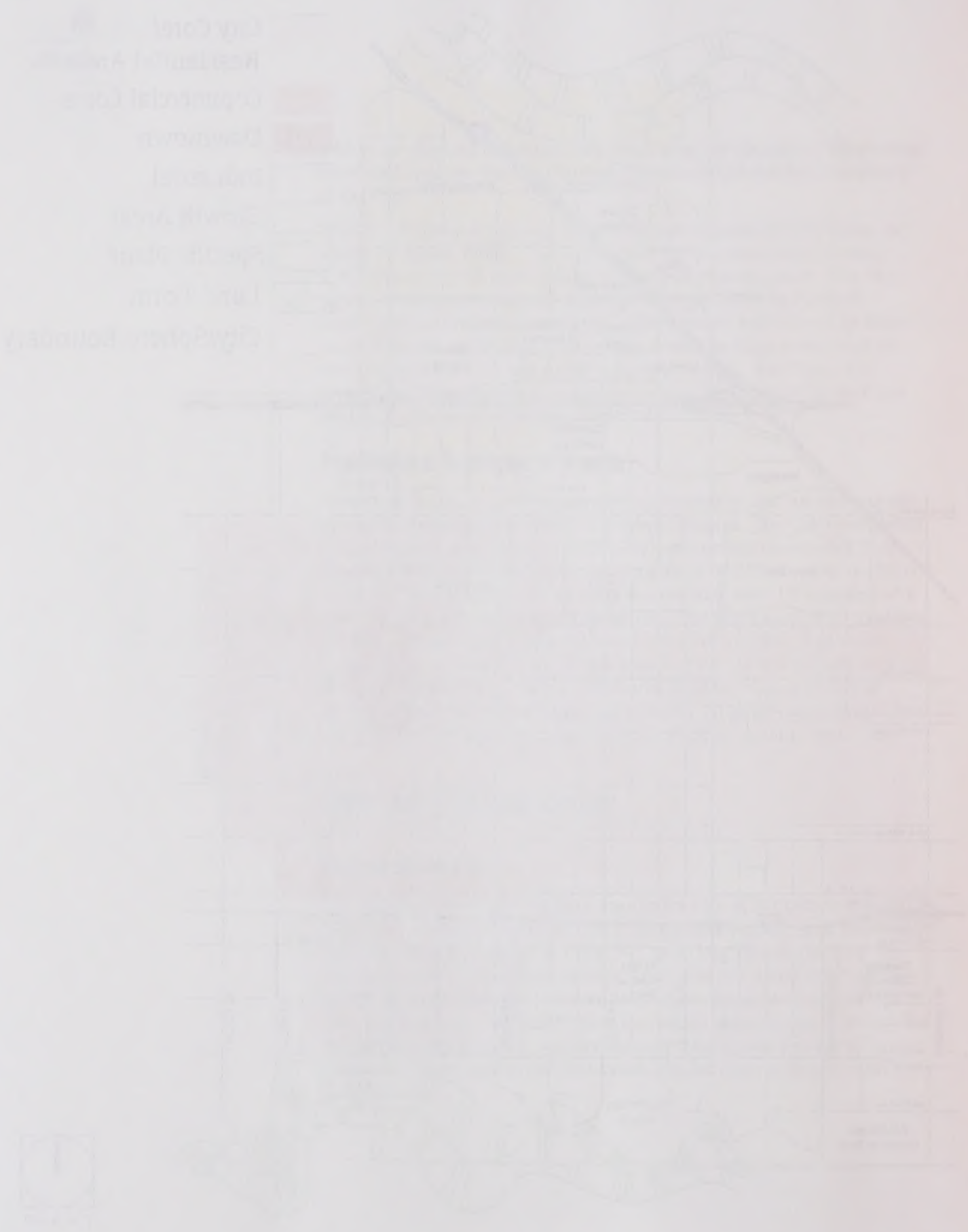
The distribution of planned land uses in the City of Fontana is mapped in Figure 3-4, *General Plan Land Use*. The summary of the land uses within the City's plan is depicted in Table 3-2, Land Use Plan Statistical Summary: Residential Designations, and Table 3-3, Land Use Plan Statistical Summary: Non-Residential Designations, below. Build-out projections are also included below for residential dwelling units and the population they generate, and for the potential square footage of non-residential development and estimated jobs for non-residential land use designations.

Community Structure

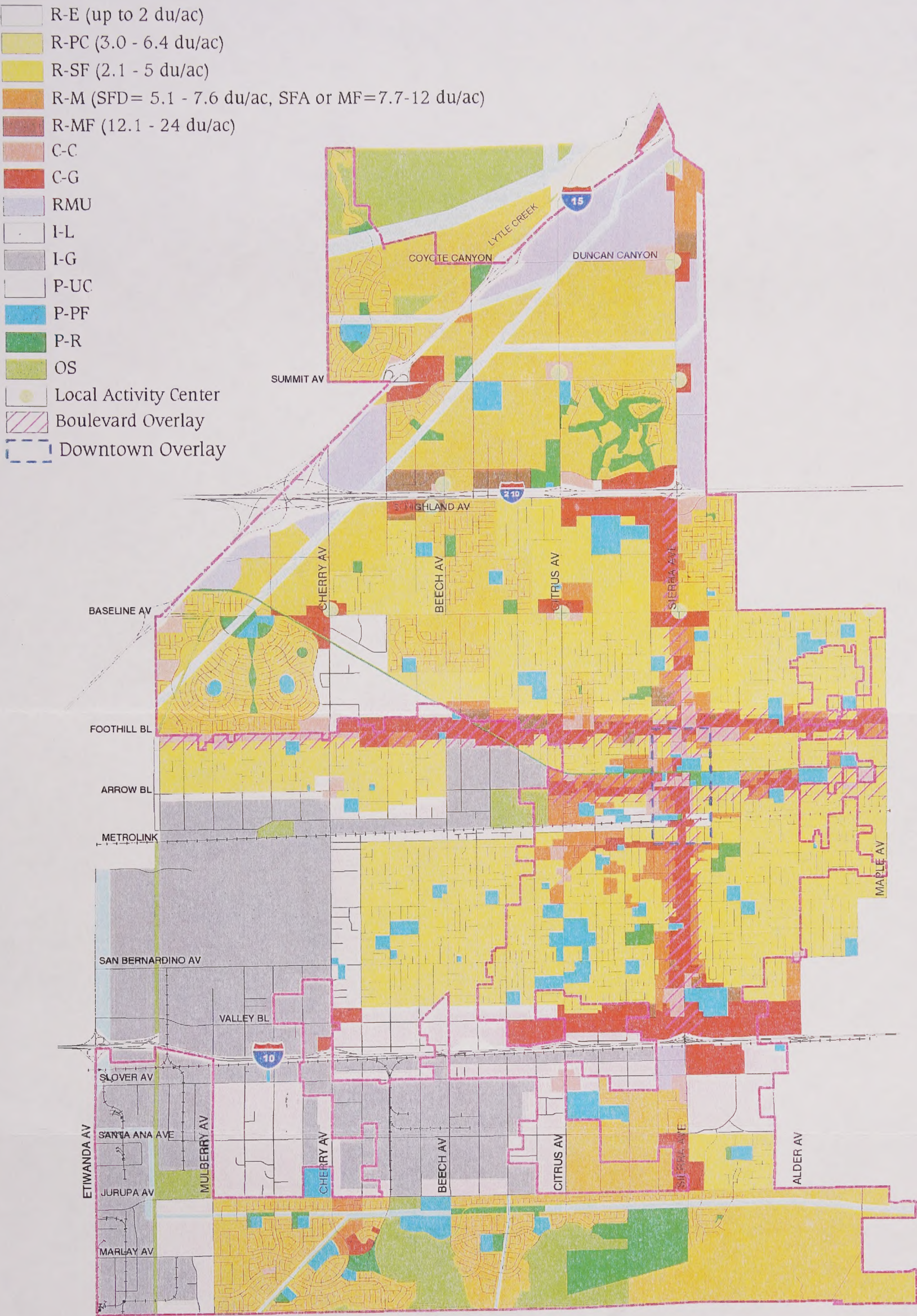


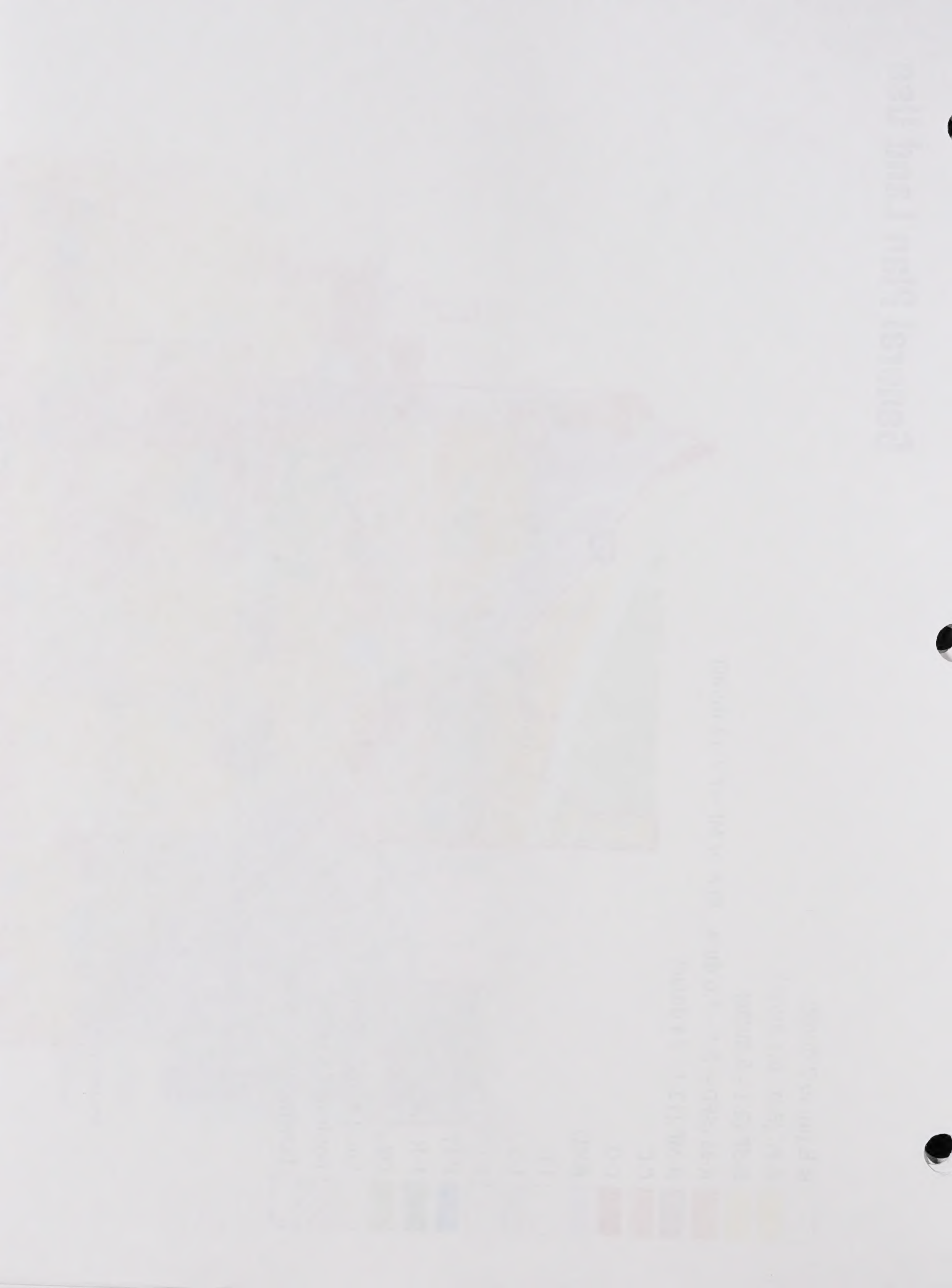
1" = 6,500'

Community Structure



General Plan Land Use





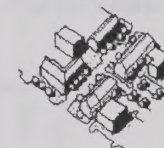


Table 3-2
Land Use Plan Statistical Summary: Residential Designations

Land Use Designations (Density Standard)	Probable Density Factor ¹	City Area				Sphere of Influence				Total Planning Area			
		City Acres	Adjusted Gross Acres ²	Dwelling Units	Population ³	Sphere Acres	Adjusted Gross Acres ²	Dwelling Units	Population ³	Total Acres	Adjusted Gross Acres ²	Dwelling Units	Population ³
Residential Estate (≤2 du/ac)	1.0	0	0	0	0	151	106	106	415	151	106	106	415
Single Family Residential (2.1-5 du/ac)	4.35	4,715	3,301	14,357	56,424	2,700	1,890	8,222	32,310	7,415	5,191	22,579	88,734
Residential Planned Community (3.0-6.4 du/ac)	4.7 ⁴	7,155	5,009	29,750	116,919	445	312	1,464	5,754	7,600	5,320	31,214	122,673
Medium Density Residential (5.1-12 du/ac)	8.55	850	595	5,087	19,993	61	43	365	1,435	911	638	5,452	21,428
Multiple Family Residential (12.1-24 du/ac)	18	267	187	3,364	10,732	4	3	50	161	271	190	3,415	10,893
Regional Mixed Use (12.1-24 du/ac)	18	272	190	3,389	10,812	0	0	0	0	272	190	3,421	10,913
Total		13,259	9,281	55,986	215,001	3,361	2,353	10,207	40,075	16,620	11,714	66,286	255,055

Note:

¹ Probable density factor is assumed to be the mid point of the density range for each category.

² Adjusted gross acreages were derived by multiplying total acreage by 0.7(70%) to allow for streets and arterials, public facilities, open space and schools.

³ Projections of population by residential designation are based on a persons-per-household factor of 3.93 for the Residential Estate, Single Family Residential, Residential Planned Community, and Medium Density Residential land use designations. For the Multiple Family Residential and Regional Mixed Use designations a persons-per-household factor of 3.19 was used. These factors were derived from statistics generated in the 2000 US Census of Population. This projection of population represents the mid-range of population that could be generated within this land use plan.

⁴ 4.7 dwelling units per acre is the probable density factor used for development within the City Sphere of Influence designated Residential Planned Community. A probable density factor of 5.9 was used for areas with this designation in the City incorporated area, in order to account for the fact that specific plans already approved in this area were approved at a higher overall density than the mid-point of this range.



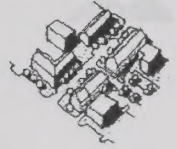
Table 3-3
Land Use Plan Statistical Summary: Non-Residential Designations

Land Use Designation (Intensity Standard)	Probable Intensity Factor ¹	City Area			Sphere of Influence			Total Planning Area		
		City Acres	Adjusted Gross Acres ²	Square Footage	Sphere Acres	Adjusted Gross Acres ²	Square Footage	Total Acres	Adjusted Gross Acres ²	Square Footage
Community Commercial (0.1-1.0 FAR)										
Retail	0.25	372	260	2,835,756	76	53	579,348	448	314	3,415,104
Office	0.25	93	65	708,939	19	13	144,837	112	78	853,776
Subtotal		465	326	3,544,695	95	66	724,185	560	392	4,268,880
General Commercial (0.1-1.0 FAR)										
Retail	0.25	1,202	841	9,159,797	302	212	2,305,195	1,504	1,053	11,464,992
Office	0.25	300	210	2,289,949	76	53	576,299	376	263	2,866,248
Subtotal		1,502	1,051	11,449,746	378	265	2,881,494	1,880	1,316	14,331,240
Regional Mixed Use (0.1-1.0 FAR)										
Retail	0.25	326	228	2,483,573	0	0	0	326	228	2,483,573
Office	0.25	109	76	827,858	0	0	0	109	76	827,858
Light Industrial	0.22	326	228	2,185,545	0	0	0	326	228	2,185,545
Subtotal		761	532	5,496,976	0	0	0	761	532	5,496,976
Light Industrial (0.1-0.6 FAR)										
Warehousing/Distribution	0.22	959	671	6,434,544	1,450	1,015	9,724,265	2,409	1,686	16,158,809
Light Industrial/R&D	0.22	240	168	1,608,636	362	254	2,431,066	602	422	4,039,702
Subtotal		1,199	839	8,043,180	1,812	1,268	12,155,331	3,011	2,108	20,198,511
General Industrial (0.1-0.6 FAR)										
Warehousing/Distribution	0.22	1,049	734	7,036,944	1,521	1,064	10,199,879	2,570	1,799	17,236,823
Manufacturing	0.22	1,049	734	7,036,944	1,521	1,064	10,199,879	2,570	1,799	17,236,823
Subtotal		2,098	1,468	14,073,888	3,041	2,129	20,399,758	5,139	3,597	34,473,645
Public Facilities (.1 FAR)	0.1	944	661	2,878,445	112	78	341,510	1056	739	3,219,955
Recreation Facilities (.1 FAR)	0.1	885	619	2,698,542	12	8	34,848	928	650	2,733,390
Public Utility Corridors	N/A	804	-	-	306	-	-	1,109	-	-
Open Space	N/A	908	-	-	660	-	-	1,568	-	-
Freeway	N/A	580	-	-	234	-	-	814	-	-
Total		10,199	5,454	48,185,472	6,650	3,814	36,537,126	16,848	9,144	84,722,597

Note:

¹ Probable intensity factor is assumed to be the mid point of the FAR range for each category.

² Adjusted gross acreages were derived by multiplying total acreage by 0.7(70%) to allow for streets and arterials, public facilities, open space and schools.



As described earlier in this Element, the system of land use designations for the City has been streamlined and simplified from that which was previously used. Key changes include the addition of a multi family residential designation to the City's system in order to accommodate development at 12-24 dwelling units to the acre. Additional areas have been identified as appropriate for the Regional Mixed Use designation, and that designation will allow the incorporation of residential development at the multi family density. The area within the City's sphere of influence previously designated for Industrial Estate development, is now intended to transition to a solely Light Industrial designation. The public facilities and commercial designations have been simplified as well.

The pattern shown on the land use plan reflects existing development and the anticipated future development in the City. The land use plan focuses non-residential development potential around existing and new freeway interchanges along Interstate 15 and on Interstate 10, as well as along SR 210. These areas can capture the largest traffic volumes moving through the City and maximize sales potential, and can also use that access to put products into the goods movement system serving the area.

Land Use Projections

The City's planning area incorporates 16,620 total acres of residential land uses, and 16,848 total acres of non-residential land uses. At the mid-point of the density range for each residential land use designation, the land use plan provides for 56,986 dwelling units to be developed in the incorporated City and 10,207 dwelling units in the sphere of influence. Based on a factor of 3.93 persons per household for single family units, and 3.19 persons per household for multiple family dwelling units, at the mid-point of the allowable density range within the land use designations, this equates to a projected population of 215,001 persons in the City and 40,075 persons in the sphere of influence at build-out. However, taking into consideration the minimum and maximum densities allowed within the land use designations, the projected population that could be generated within this plan in the City could range from 133,532 to 247,775 at build-out, and from 32,119 to 48,032 persons in the sphere of influence at build-out.

The land use plan also provides for total of 2,440 acres of community and general commercial development (which could include development of office uses), 8,150 acres of light and general industrial uses, and 1,086 acres of regional mixed use development, which is intended to include a mix of commercial, industrial and higher density residential development. At build out the land use plan could generate 105,992 jobs



using the probable intensity factors (FARs) for each non-residential land use designation.

Vacant Land

As of the fall of 2001, nearly 40% of the area within the City and its sphere of influence is vacant. This area includes lands that have been classified as agricultural by the San Bernardino County Tax Assessor as of 2001. According to the San Bernardino County Agricultural Commissioner's records only a dozen nurseries and a small acreage of vineyards are still in production in the planning area. This vacant area totals more than 10,000 acres, 8897 acres within the incorporated City boundaries, plus 2418 acres in the City's sphere of influence. The majority of the vacant land in the City is located north of SR 210. Growth has already begun to occur north of SR 210 with the development of Hunter's Ridge, Summit Heights, Citrus Heights and Sierra Lakes, and will further be induced by this major east-west transportation corridor within the City. Environmental constraints that will require recognition and mitigation in that area as it develops include the potential location of endangered species, as well as seismic, flood and wildland fire hazard areas. Chapter 9, the Open Space & Conservation Element, and Chapter 11, the Safety Element contain more information about environmental constraints and physical hazards in the City of Fontana.

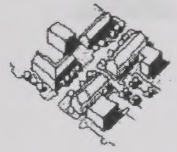
In addition to the large open areas of the City still available for development in the north, scattered infill opportunities are located in the central core of the City, and significant development opportunity areas exist in its sphere of influence to the west and north, in a concentrated area south of Slover Avenue and east of Sierra Avenue, and south of Jurupa Avenue in the southeast corner of the City.

ISSUES, GOALS, POLICIES & ACTIONS

ISSUE #1: BALANCED LAND USES

How can the City ensure that land uses in the community are balanced between residential, non-residential, open space and public facilities, so that the broadest range of our residents' needs are met?

Discussion: As indicated in the City's vision statement, we desire that residents have the choice of living and working here. We recognize that balancing residential and job-producing land uses within the community increases the quality of life here, and is insurance that the community will remain economically and fiscally sound. We also recognize that the



quality of the design of the community, as well as the amenities, services, schools, and parks and open spaces here all contribute to our ability to draw new residents, workers and businesses to our community, and to keep them here.

GOAL #1:

Land Use in our community is balanced between residential, commercial, industrial, open space and recreational land uses that are developed to high standards of quality and provide diverse economic, social, and cultural opportunities for our citizens and those who wish to invest here.

Policies:

- 1) Development shall be consistent with our land use plan and contribute to the maintenance of an economic base that provides high quality jobs for those who choose to both live and work in Fontana.
- 2) A variety of residential uses, product types, and densities shall be developed in Fontana to meet the housing needs of people with varied incomes and lifestyle choices.
- 3) New planned communities in our City shall be developed to high standards for site design and landscaping and shall incorporate and/or be linked with amenities such as community facilities, schools, parks and other forms of open space.
- 4) Activity centers identified conceptually on the Land Use Plan shall be the preferred form of development for residentially serving retail, services and entertainment uses, and shall incorporate open spaces for public gathering as well.
- 5) Areas designated as Regional Mixed Use on the Land Use Plan shall be developed with a mix of non-residential and residential uses responsive primarily to regional market and locational forces.

Actions:

- 1) Incorporate new provisions in the zoning code for mixed-use/multiple use development.
- 2) Create and adopt guidelines for mixed use development within the Activity Center overlay designation to augment the regulations provided in the Zoning Code.
- 3) Create and adopt guidelines for mixed use development within the Regional Mixed Use designation to augment the regulations provided in the Zoning Code.



- 4) Establish project review criteria that reward variety in development mix and product type, efficient use of land, high levels of amenity features, attention to quality details, and effective use of open space features as integral components of the development.

ISSUE #2: LAND USE COMPATIBILITY

How can we ensure that the diversity of land uses already developed in our community, and those still remaining to develop, support the quality of life of our residents and workers?

Discussion: In a diverse City such as Fontana, with a mix of residential, industrial and commercial land uses, achieving compatibility between land uses can be a delicate balancing act. For example, the impacts of the trucking industry, so important to our economy, must be balanced with the needs of our residential communities. Residential and industrial land uses have already developed in close proximity south of Interstate 10 in Fontana, and further development of both types is planned. Site planning, orientation of uses on site, buffering between adjacent properties, and limitation of noise and emissions, will all be necessary to achieve compatibility of uses in south Fontana and address quality of life issues.

Further, the diverse transportation system that serves our City is generally an asset to us through its road, highway and rail links. However, transportation corridors can have negative noise, odor, air quality and safety impacts on adjacent development, if they are not carefully managed. Our most significant transportation facilities – Interstates 10 and 15, and SR 210, are under the jurisdiction of Caltrans, the state highway agency, not the City of Fontana. This imposes a significant coordination responsibility on city and state officials so that local and regional needs are properly reconciled.

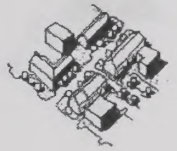
Finally, the utility easements that traverse our City from northeast to southwest can serve an important purpose in buffering uses from each other, and can be used to link portions of the community together.

GOAL #2:

Quality of life in our community is supported by development that avoids negative impacts on residents and businesses and is compatible with, and enhances, our natural and built environment.

Policies:

- 1) New development with potentially adverse impacts on existing neighborhoods or residents such as noise, traffic, emissions and



storm water runoff, shall be located and designed so that quality of life and safety in existing neighborhoods are preserved.

- 2) Regionally beneficial land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors shall be sensitively integrated into our community.
- 3) Infill development within existing residential neighborhoods shall be compatible with adjacent uses and enhance the local character.
- 4) Hillside development and development adjacent to natural areas at northern and southern edges of the City shall be designed to preserve natural features and habitat.
- 5) Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses.

Actions:

- 1) Review City design guidelines to verify adequacy of impact rules and update them where necessary.
- 2) Review City design guidelines to insure that provisions are included for guidance of regional scale development, with special emphasis on buffering, open space linkages, mobility separation and aesthetics.
- 3) Adopt residential infill site design guidelines for application especially where the predominant neighborhood character is well established so that infill projects contribute to that character.
- 4) Review and amend hillside development standards and review/ amend the grading ordinance to require sensitive treatment of hillside development.
- 5) Administer a utility coordination program with utility providers to consolidate disruptions of public rights-of-way.
- 6) Coordinate with utility providers to determine which open space opportunities have potential and negotiate agreements accordingly.
- 7) Establish and maintain an ongoing liaison with the County of San Bernardino to influence their General Plan update within the City's sphere of influence.
- 8) Establish and maintain an ongoing liaison with the County of San Bernardino to conform development projects within the City's sphere of influence to the City's General Plan.



- 9) Establish a program and schedule for conversion of the area formerly designated for industrial estates to planned industrial uses.
- 10) Administer a process for reviewing the design of residential projects adjacent to transportation corridors to ensure that they are appropriately buffered.

ISSUE #3: ONE FONTANA: UNIFYING OUR CITY

How can we ensure that our community is physically and aesthetically unified, and has a consistent image and quality character?

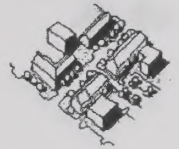
Discussion: Several dominant physical features divide our City. Sectors of the community were developed at notably different points in time — and this will become more evident as time goes on. All of this lends to a diffusion of appearance.

It is important to recognize that uniformity is not the goal. Rather, the intent is to accommodate a legitimate variation of development types and styles within an identifiable framework. While much of this is accomplished by policy direction in the Community Design Element, land use patterns and guidance play an important role in this regard.

While development in our City has been positively influenced by the major transportation facilities that traverse our community, those same facilities have over time physically isolated portions of our City. The portion of our City located south of Interstate 10 is isolated from the rest of the community, the core of the City between Baseline Avenue and Interstate 10 is insular and relates to Sierra Avenue, and the portion of the City north of Baseline and particularly north of SR 210, has stronger physical connections to Rancho Cucamonga than to Fontana. The central core of the City does not function sufficiently as a center, a heart or a draw for all of the residents of the City.

The views into our City from the transportation corridors that traverse or border also strongly influence public perception of our community. Consistently high standards of design must be applied to the edges of our City so that it is perceived as attractive and high quality. Entries into the community clearly mark Fontana's territory and call attention to the quality standard expected here. Corridor design and landscaping are important contributors to the desired image.

Overall community image is also strongly influenced by what goes on within the vast unincorporated territory within the City's sphere of influence. This influence is so powerful in part because of the extensive county lands and in part because this territory lies along some of the important corridors linking Fontana to the regional transportation system. In short, it's land that a lot of people see and associate with



Fontana. Consequently, close coordination with the County has long been an important priority and will continue to be so.

Finally, cutting across this entire topic, is the strong role played by our arterial highway system and the corridors it serves. They tie the entire community together and offer the primary means by which people experience the community as a whole. It is in the domain of this network that land uses, streetscapes and improvements can best convey a cohesive quality throughout our community without resorting to a boring – and impractical – uniformity.

GOAL #3:

Our community is developing in a unified, orderly, logical, environmentally sound manner, which ensures that the City is unified and accessible to all residents, and results in economically sound commercial areas, vibrant neighborhoods, and jobs rich centers.

Policies:

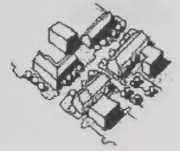
- 1) Areas adjacent to freeway and major arterial corridors shall be given special land use and development standards guidance.
- 2) Land uses within freeway and arterial corridors shall be arranged around focal points of varied sizes and configurations to convey a sense of distinctiveness.
- 3) Circulation system improvements shall continue to be pursued that facilitate connectivity across freeway and rail corridors.
- 4) Improvements shall be made to transportation corridors that promote physical connectivity and reflect consistently high aesthetic values.
- 5) Activity centers should be linked with residential neighborhoods and be accessible by multiple modes of transportation.
- 6) Annexations shall be pursued that promote Community balance, quality development, and improvement of the City's economic base as follows:
 - a. Annexations may be initiated by the City Council (adopted resolution) or by property owners or registered voters (written petition).
 - b. Annexations should be initiated for unincorporated land that is contiguous to the City's corporate boundaries that are desirous of City services, such as, police, street sweeping, graffiti removal, tree trimming, street improvements and maintenance, sewer availability, and other services provided by the City.



- c. A Plan for Services shall be prepared for all annexations and submitted to the City Council for review and consideration.
- d. A fiscal impact analysis shall be conducted for all annexation areas.
- e. Pre-zoning of a proposed annexation area shall be completed prior to submission of an annexation application to the Local Agency Formation Commission of San Bernardino County.
- f. Irrevocable Agreements to Annex shall be utilized when sewer service is extended outside the City's corporate limits to an existing residence or an existing commercial or industrial establishment.
- g. Irrevocable Agreements to Annex shall be utilized when sewer service is necessary for new developments that are *not* contiguous to the City's corporate boundaries; otherwise, annexation to the City is strongly urged.
- h. Pre-annexation agreements may be utilized for proposed developments or existing developments that are *not* contiguous to the City's corporate boundaries. Pre-annexation agreements may be used to outline land use designations, development standards, conditional use permits approved by the County of San Bernardino, donation of right-of-way easements, sewer service, and other requirements, as necessary.

Actions:

- 1) Influence and adopt provisions of the I-10 Multi-jurisdictional Land Use Strategy and Program where they contribute to improving the quality and image of Fontana through this important window on the community.
- 2) Review operation of overlay districts periodically to determine the extent to which they are achieving the desired land use patterns and intensities and make modifications as necessary to improve their effectiveness.
- 3) Use the mandated annual report specified in the government code as a means of identifying where land use strategies reflected in the General Plan need to be strengthened or revised.
- 4) Incorporate City identity generating projects in each annual budget cycle and capital improvement program to facilitate continuous progress toward the desired City image.
- 5) Continue and expand the current annexation program to include, but not be limited to the following components:
 - a. Respond to annexation requests on an ad hoc basis.



- b. If property lies outside the City limits, work with property owners to obtain right-of-way easements, in conjunction with obtaining property owner consent for annexation.
 - c. Identify and pursue a logical phasing plan for annexation of parcels along Foothill Boulevard.
 - d. Establish and meet with neighborhood committees comprised of interested property owners, residents and businesses, in regular meeting times and places in the unincorporated areas, to discuss the annexation process and benefits.
 - e. Target unincorporated island areas and establish a "neighborhood block" approach to annexation.
 - f. Work with City lobbyist to revise legislation on the "island provisions" in the government code to either increase acreage limitation or delete acreage limitation entirely.
 - g. Seek annexation for contiguous properties at all times, particularly where development projects are proposed.
 - h. Work closely with County Planning staff for pending development proposals that are contiguous to City boundaries; and develop annexation strategies at all times. If annexation is not feasible, hold in abeyance the irrevocable agreement to annex for sewer service, until the City-development standards are met.
- 6) Establish a signage program for determining the design, placement and financing responsibilities of City entry/welcome signs adjacent to unincorporated areas.
 - 7) Work with Caltrans, San Bernardino County, and neighboring cities to ensure that functional and aesthetically pleasing design of transportation corridors is consistently implemented (see Action 1, above, related specifically to the I-10 corridor).

ISSUE #4: INFILL AND REVITALIZATION OF OUR CORE AREAS

How can the City's core developed areas be revitalized by a careful mix of infill, revitalization, redesign and, where necessary, redevelopment?

Discussion: When approaching Fontana from outside the City, one strong impression is that there is a lot of vacant land. That is certainly true in the northern and western portions of our City. It is less so toward the central and older sectors. What is more evident in those areas is that a number of land parcels are simply underutilized: activity takes place there, but a lot of land parcels and many buildings are simply not performing to their true potential. This is accentuated by the fact that many of these land uses are poorly maintained and convey an image of decline. That is particularly so in some of the unincorporated areas within Fontana's sphere of influence.



The net result of these conditions is that a considerable amount of development potential remains in the City. This potential can be realized in one or more ways:

- Vacant parcels scattered within existing development can be built upon;
- Existing development can be intensified and rehabilitated to become more productive;
- Existing development can be redesigned to become more contemporary and functional in its use of the land;
- Existing uses can be removed and replaced: redeveloped; or
- Some combination of these strategies where properties are characterized by a mix of conditions and potentials.

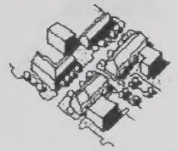
As growth pressures increase in the general area, property values increase and quality expectations of citizens escalate. Land reserves represented by vacant infill and underutilized parcels take on even greater importance. Consequently, policies to guide this important community resource are a critical part of Fontana's development guidance system.

This phenomenon is not new, and our City has been quite proactive in stimulating the development of residential infill parcels as well as refurbishing and updating some of the deteriorating housing stock.

Non-residential areas, such as the commercial development along Sierra Avenue, Foothill Boulevard and Arrow Highway, are even more challenging to address because of the fact that so much commercially and industrially designated land in this general market area is available. Further, many of the land parcels are of a size, shape or location as to be difficult to develop in an efficient manner; and there is a great deal of market competition by nearby projects that are large, well designed and well established in the market place.

This General Plan, therefore, contains a strong commitment to focusing economic development potential along key corridors and in selected activity centers at major intersections. This is accomplished through two overlay districts that augment provisions of standard zoning to allow market flexibility.

One of the key strategies represented by the activity center and corridor overlay system in this Plan is simply to promote a clustering of related uses so that distinct, discernible "places" of varied sizes, functions and complexity can emerge. By this means, economic activity can be stimulated to reinforce itself: achieving greater private sector profit, public benefit and sustainability over the long haul. Existing magnets



for development can therefore be made much more attractive and, over time, achieve a desired living environment.

The General Plan seeks to guide private and public energies and resources toward reversing these patterns and reclaiming the vitality that has been lost in these areas.

GOAL #4:

The quality of life and economic vitality in our City's core areas are enhanced by strategic infill of new development and revitalization of existing development.

Policies:

- 1) Infill development shall be accorded a high priority in the commitment of City resources and available funding.
- 2) Special incentives shall continue to be applied to revitalization of deteriorated housing stock, residential neighborhoods, major business corridors and employment centers.
- 3) Where necessary to stimulate the desired mix and intensity of development, land use flexibility and customized site development standards shall be achieved through various master planning devices such as specific plans, planned development zoning and creative site planning on individual building sites.
- 4) Clustering of development at key points with intermediate sectors of less intensive uses should be promoted along arterial corridors.
- 5) Assembly of parcels to allow for more efficient development patterns should be promoted wherever adjacent neighborhoods are not adversely impacted.
- 6) Code enforcement shall be used in coordination with all relevant City departments to reverse deterioration and achieve acceptable levels of development quality.
- 7) Aggressive collaboration with the County of San Bernardino shall be sustained to achieve acceptable development quality within Fontana's sphere of influence.
- 8) Maintaining ongoing relationships with businesses, property owners and residents in designated infill areas shall be a priority for City staff.



Actions:

- 1) Review and update the City's infill development ordinance on a regular basis to insure its effectiveness and focus its application in areas of greatest need.
- 2) Research and apply other tools that can be brought to bear on reversing deterioration, including but not limited to establishing maintenance fees on rental properties as a form of business.
- 3) Survey the area designated with the Boulevard Overlay designation to identify and set priorities on potential sites for assembly and revitalization, intensification or redevelopment.
- 4) Establish regular review dates for evaluating the effectiveness of the updated Zoning Ordinance in meeting revitalization objectives.
- 5) Review code enforcement resources and procedures to determine how and to what extent they need strengthening to meet the quality expectations expressed by this Plan.
- 6) Continue to support upgrading and replacement of the portion of the City's housing stock that is aging and deteriorating, especially where this pattern is just beginning to emerge in neighborhoods.
- 7) Continue and intensify the coordination program for influencing County development policy/practices.

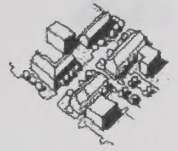
ISSUE #5: REVITALIZING DOWNTOWN

How can the City's Downtown be reinvented so that it functions as a center for the community and attractive destination for residents and visitors?

Discussion: The City's Downtown has been identified on the Land Use Plan with a Downtown Overlay extending from Foothill Boulevard on the north, to Merrill Avenue on the south, and from Juniper Avenue on the west, to Mango Avenue on the east. Within this designation, the core commercial area of Downtown stretches roughly to Arrow Boulevard on the north and Orange Way on the south. The boundaries of the overlay extend beyond the core commercial area in order to take in the Civic Center and other public facilities to the north and the Metrolink Station and senior housing development to the south. The City's vision for the Downtown calls for it to function as a lively destination within the City, and to be connected into the community and other civic destinations within the Downtown area. Our community recognizes the value of integrating a mix of land uses into what amounts to our "main street" in terms of land values, rental rates, sales tax generation and less tangible,

"Without a strong and inclusive heart, a city tends to become a collection of interests isolated from one another. It falters at producing something greater socially, culturally, and economically than the sum of its separated parts."

Jane Jacobs, *The Death and Life of Great American Cities*



but no less important improvement in quality of life and sense of place here.

To put this issue in perspective, it is important to note that many suburban communities have no recognizable downtown at all. They struggle to find a focal point that can perform unique functions within their community and serve as a symbol recognizable to citizens and visitors alike. Cities that have such focal points and have strengthened them uniformly benefit from this prominent community feature. Fontana is fortunate to have such a locale and must therefore seek to return it to prominence in the life of the City. Its value is functional, economic, and even psychological in the leverage it provides in stimulating a sense of community. Our challenge is not to create a downtown, but to re-energize the existing, historic downtown.

GOAL #5:

Our Downtown is a vibrant, pedestrian-friendly, economically healthy, safe, convenient and accessible district that serves as the true heart and focal point of the community.

Policies:

- 1) Downtown should be revitalized and redeveloped with a mix of uses attractive to broad segments of Fontana's population that stimulates activity during day and evening hours, and on the weekend.
- 2) New projects implemented in Downtown shall be designed and scaled to attract pedestrians and promote interest and life on the street.
- 3) The physical connections among public and civic uses in and around the Downtown, and between Downtown and the surrounding neighborhoods, shall be expanded and improved with custom design standards found only in the downtown area.
- 4) Downtown, its Metrolink Station and Transit Plaza, and the surrounding community shall be accessible and connected by multiple modes of transportation including pedestrian, bicycle, transit and automobile.
- 5) The residential neighborhoods that are connected to the Downtown shall be preserved and enhanced.
- 6) Special events and community celebrations should be focused, at least partially, on the downtown area to stimulate its role as a community focal point.

**Actions:**

- 1) Publish, disseminate and work toward the implementation of the guidance provided in the 2003 Downtown Economic Feasibility and Development study conducted for Downtown.
- 2) Complete a detailed land use and ownership survey of the Downtown Overlay area in order to identify opportunities for property consolidation and stimulation of new development projects.
- 3) Develop and initiate implementation of Downtown Overlay land use and design guidelines.
- 4) Establish a focused program for funding downtown improvements including, but not limited to grant funding from state, federal and foundation sources.
- 5) Develop a collaborative program with the Chamber of Commerce, downtown business interests, residents, property owners and investors to promote downtown revitalization.
- 6) Create and promote a downtown database that clarifies investment and development opportunities there and makes them available to the larger business community as a means of stimulating reinvestment.
- 7) Review and assess the existing and potential community activities and celebrations that could involve the downtown area and recommend priorities for action.



Chapter 4

Circulation Element





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Chapter 4. Circulation Element

INTRODUCTION

The Circulation element is one of seven mandated elements of the General Plan and is intended to guide the development of the City's circulation system in a manner that is compatible with the Land Use Element. Due to the importance of a well planned circulation system, the State of California has mandated the adoption of a citywide Circulation Element since 1955. The current State mandate for a Circulation Element is found in Government Code section 65302(b), which states that the General Plan shall include:

"... a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

The anticipated level and pattern of development as identified by the buildout of the Land Use Element, will generate traffic demands on the City's infrastructure system that must be accommodated by the circulation system, transportation terminals, public utilities and facilities. To help meet these demands and achieve balanced growth, the City has adopted specific goals and policies, which serve as the basis for the Circulation Element.

A Circulation element must take into account that increasing population, energy shortages and the continued degradation of air quality are producing profound changes in how we view both transportation requirements and land development patterns.



Relationship to Other General Plan Elements

The Circulation and Land Use Elements mutually affect one another. The nature, routing and design of circulation facilities are among the major determinants of the form of human settlement and of the uses of the land. Conversely, land uses create a demand for circulation facilities. The goals and policies of the Circulation Element also have a direct relationship with the housing, open-space, noise and safety elements. State law requires consistency among all the elements of the General Plan.

COMPONENTS OF THE PLAN

Major Thoroughfares and Transportation Routes

Classification of Streets

For the purposes of analysis and evaluation of roadway needs, a roadway functional classification system has been established for the City of Fontana. These classifications are divided into Standard and Modified categories. Typical cross-section elements associated with each standard classification are shown in Figures 4-1a through 1d, Standard Cross Sections. Street cross-sections that require deviation from the typical adopted cross-sections indicated in these figures are shown in Figures 4-1e through 1g, Standard Cross Sections. These Modified cross-sections shall only be applicable to infill areas where substantial development exists with existing physical constraints, including street improvements. In no case shall the modified cross-section be less than the existing adjacent cross-section or the previously adopted cross-section for the street on this General Plan.

Additional right-of-way dedication beyond the approved typical cross-section may be required in order to accommodate additional turn lanes in order to maintain acceptable levels of service per City requirements. The six roadway classifications are briefly described in the following paragraphs.

Major Highways

These roadways can accommodate six or eight travel lanes and may have raised medians. These facilities carry high traffic volumes and are the primary thoroughfares linking Fontana with adjacent cities and the regional highway system. Driveway access to these roadways is typically limited to provide efficient high volume traffic flow. Right of way (including sidewalks) on these facilities varies between 132 and 156 feet depending on the number of lanes. See Figure 4-1a.



Primary Highways

These roadways are designed to accommodate four travel lanes with a median, within a typical 104-foot right of way, carry high traffic volumes and provide limited access. Their primary function is to link the major highways to the secondary highways as well as to carry vehicles entering and exiting the City from neighboring areas. Driveway access is also typically limited on these facilities, where feasible. See Figure 4-1b.

Secondary Highways

These roadways are typically four-lane streets, providing two lanes in each direction. These highways carry traffic along the perimeters of major developments, provide support to the major and primary highways, and are also through streets enabling traffic to travel uninterrupted for longer distances through the City. Secondary highways have a 92-foot wide right of way, which includes sidewalks. See Figure 4-1b.

Collector Streets

These roadways are typically two-lane streets that connect the local streets with the secondary highways allowing local traffic to access the regional transportation facilities. Collector streets have a 68-foot wide right of way. See Figure 4-1c.

Industrial Collectors

These roadways are typically two-lane streets, which are designed to accommodate industrial traffic. Industrial collectors also have a 68-foot wide right of way, which includes sidewalks. See Figure 4-1c.

Local Streets

These roadways are typically two-lane streets that designed to serve neighborhoods within residential areas. There are several variations on local streets depending on location, length of the street, and type of land use. These are illustrated in Figures 4-1d. As shown in this figure, right of way for local streets varies between 50 and 64 feet depending on the type.

Public Transit

Bus Service

Public transportation in the Fontana area is provided by Omnitrans, the regional Public Transit operator for San Bernardino County. Omnitrans functions as a joint powers agency supported by the County of San Bernardino and all the cities in the east and west San Bernardino Valley. The City of Fontana is represented on the Omnitrans Board. Omnitrans is financed through the State Transit Development Act and Urban Mass Transit Funds.



Omnitrans service in Fontana is primarily oriented in the east-west direction, connecting the City to the adjacent communities of Rialto, San Bernardino and Colton to the east and Rancho Cucamonga, Ontario, Montclair and Pomona to the west. A north-south connection across the I-10 freeway is provided on Sierra Avenue. A map of Omnitrans' current services is provided in the Appendix C. Currently, Omnitrans provides service on ten fixed routes in Fontana. Detailed descriptions of these routes and their major service areas are also listed and described in Appendix C.

Demand/Response System

Omnitrans provides Fontana residents that qualify for service under the Americans with Disabilities Act with a demand/response transportation system known as "Access." A resident may call and request a pick-up and delivery to a requested destination on a space-available basis with a reservation made 24 hours in advance.

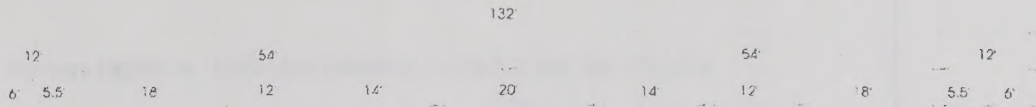
Short Range Transit Plan

Omnitrans periodically updates its serviced plan through the preparation of a Short Range Transit Plan (SRTP) which evaluates service for a five-year period. A SRTP for the years 2004-2009 has recently been drafted and includes some proposed changes in routes within Fontana. A map of service proposals by Omnitrans in the SRTP is provided in the Appendix C. These changes which are proposed to take effect in January 2004 include:

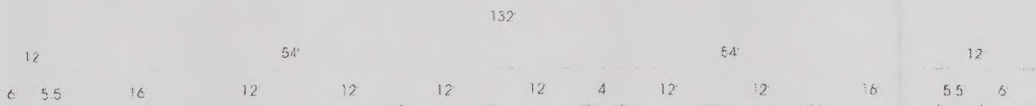
- ◆ **Route 10** – The Route will be combined with Route 12, extending direct service from Fontana to the Redlands Mall
- ◆ **Route 14** – The Route will be combined with Route 5, extending direct service from Fontana to the east side of the City of San Bernardino.
- ◆ **Route 29** – Route 29 is shortened south of the I-10 Freeway and a new Route 28 initiated.
- ◆ **New Route 28** – This route swaps part of the former Route 29 routing with Route 71. Route 28 will extend from the South Fontana Transfer Center to south of the freeway and will follow Slover to Mullberry instead of Jurupa and Route 71 will be shifted to Jurupa.
- ◆ **Route 67** – The modified route will connect the Fontana Metrolink Station to the Ontario Transcenter and no longer serve Chaffey College. A transfer to Route 60 or 68 will be required to reach the College.
- ◆ **Route 71** – As noted above, Route 71 picks up a portion of former Route 29.

Standard Cross Sections

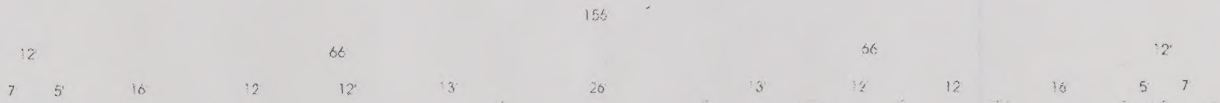
Major Highway - Midblock (Revised 12/18/90; Res No. 90-281)



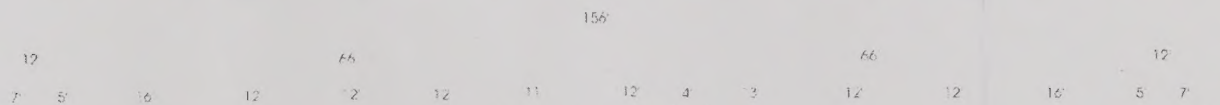
Major Highway - Intersection (Revised 12/18/90; Res No. 90-281)



Eight-Lane Major Highway - Midblock (Added 10/15/96; Res No. 96-60)



Eight-Lane Major Highway - Intersection (Added 10/15/96; Res No. 96-60)

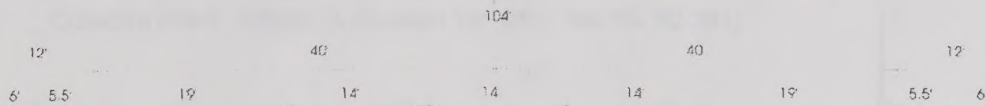




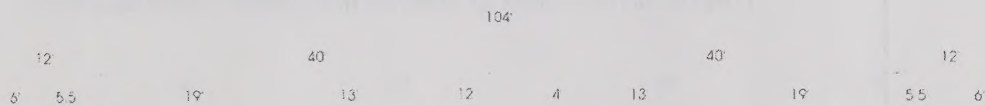
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Standard Cross Sections

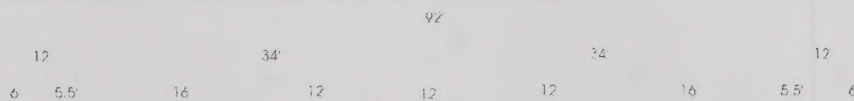
Primary Highway - Midblock (Revised 12/18/90; Res No. 90-281)



Primary Highway - Intersection (Revised 12/18/90; Res No. 90-281)



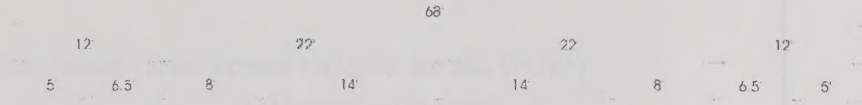
Secondary Highway (Revised 12/18/90; Res No. 90-281)



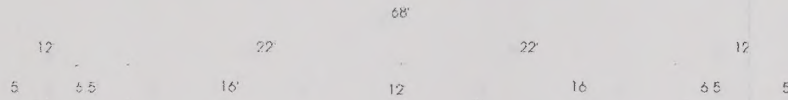


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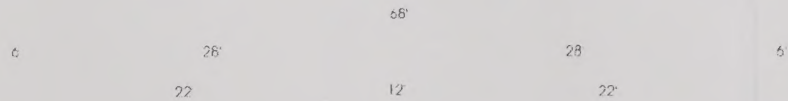
Collector Street - Midblock (Revised 12/18/90; Res No. 90-281)



Collector Street - Intersection (Revised 12/18/90; Res No. 90-281)



Collector Street - Industrial (Revised 12/18/90; Res No. 90-281)

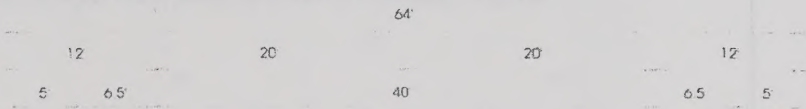




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Standard Cross Sections

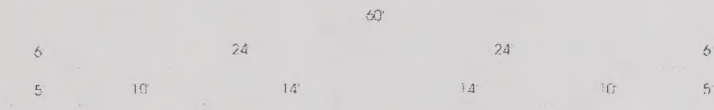
Local Street (Revised 12/18/90; Res No. 90-281)



Local Street - Short (Added 12/18/90; Res No. 90-281)
600 feet or less in length



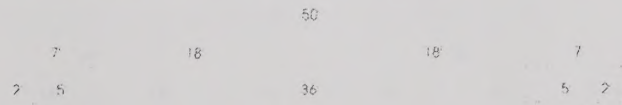
Local Street - Industrial (Added 12/18/90; Res No. 90-281)



Local Street (Added 11/1/94; Res No. 94-125)
Community/Specific Plans in North Fontana



Local Street - Short (Added 11/1/94; Res No. 94-125)
Community/Specific Plans in North Fontana





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Standard Cross Sections

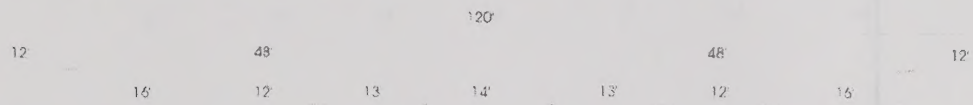
Modified Major Highway - (Added 7/21/92: Res No. 92-108)

Valley Boulevard from Sierra Avenue to Palmetto Avenue



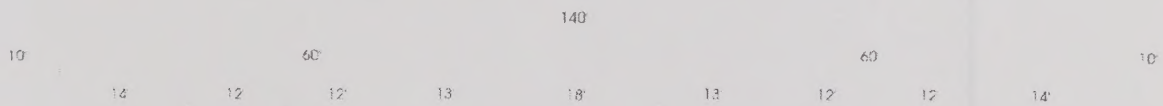
Modified Major Highway - (Added 7/21/92: Res No. 92-108)

Sierra Avenue from Merrill Avenue to Marygold Avenue



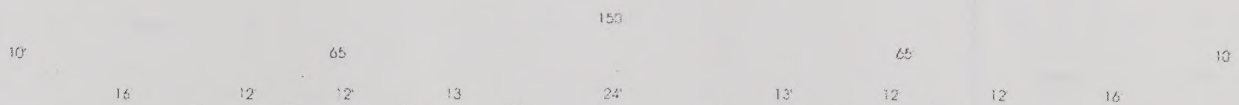
Modified Major Highway - (Added 7/21/92: Res No. 92-108)

Sierra Avenue from Marygold Avenue to Valley Boulevard



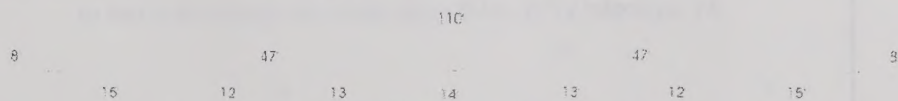
Modified Major Highway - (Added 7/21/92: Res No. 92-108)

Sierra Avenue from Valley Boulevard to Slover Avenue



Modified Major Highway - (Added 8/6/02: Res No. 02-116)

Sierra Avenue between Foothill Boulevard and Merrill Avenue

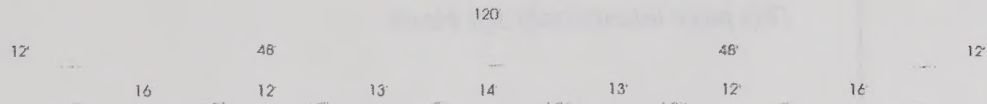




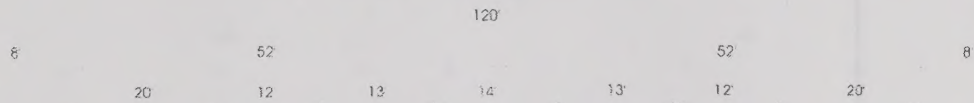
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Standard Cross Sections

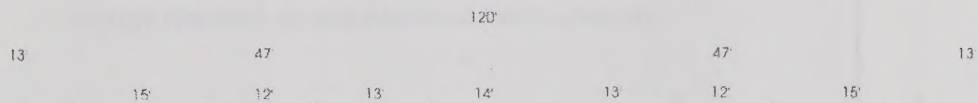
Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Baseline Avenue from 400 feet west of Almeria to Maple Avenue



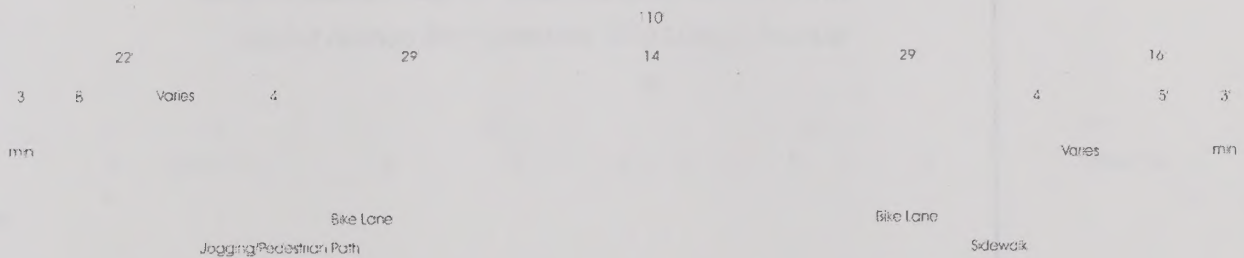
Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Foothill Boulevard west of Citrus



Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Foothill Boulevard east of Citrus



Modified Primary Highway - (Added 5/17/94: Res No. 94-96)
Cherry Avenue/Coyote Canyon Road from Summit Avenue
to the proposed Duncan Canyon/Interstate 15 interchange



Modified Primary Highway - (Added 10/1/96: Res No. 96-54)
Sierra Avenue from the proposed southbound on-ramp for Interstate 15
to the northbound on-ramp and off-ramp for Interstate 15



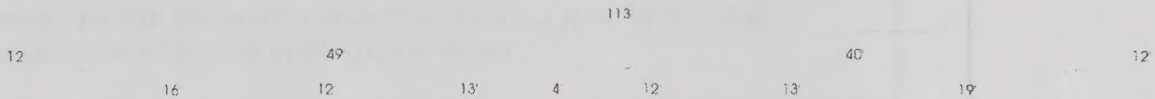


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Standard Cross Sections

Modified Primary Highway - (Added 10/1/96: Res No. 96-54)

Sierra Avenue from the proposed southbound off-ramp for Interstate 15
to the proposed southbound on-ramp for Interstate 15



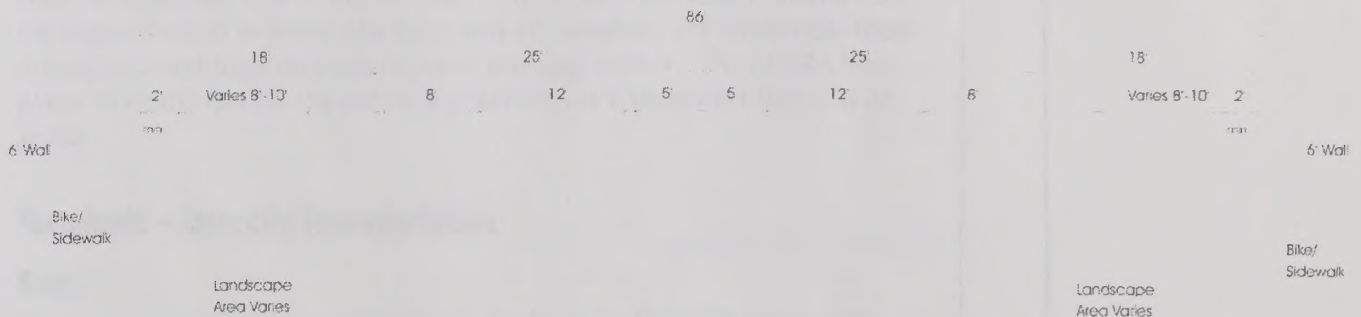
Modified Secondary Highway - (Added 8/3/94: Res No. 93-97)

Orange Way from Juniper Avenue to Mango Avenue



Modified Collector Street - (Added 8/2/94: Res No. 94-95)

Walnut Avenue from Interstate 15 to Mango Avenue





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Commuter Rail

Commuter Rail service is provided by the Southern California Regional Rail Authority (SCRRA), which operates the Metrolink train service.

In June 1990, the California Legislature enacted Senate Bill 1402, Chapter four of Division 12 of the Public Utilities Code. The bill required the transportation commissions of the counties of Los Angeles, Orange, Riverside and San Bernardino to develop jointly a plan for regional transit services within the multi-county region.

In August 1991, the Southern California Regional Rail Authority (SCRRA), a Joint Powers Agency (JPA), was formed. The purpose of the newly formed SCRRA was to plan, design, construct and administer the operation of regional passenger rail lines serving the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. The SCRRA named the regional commuter rail system "Metrolink."

Today in 2003, Metrolink, in its ninth year of operation, serves over 35,000 passengers daily. There are seven lines in the Metrolink train network; the Ventura County Line, Antelope Valley Line, San Bernardino Line, Riverside Line, Orange County Line, Inland Empire-Orange County Line and 91 Line (Riverside-Fullerton-Downtown LA). All but the Inland Empire-Orange County Line intersect at Union Station in Downtown Los Angeles. The City of Fontana is served by the San Bernardino Line, with a station located at Sierra/Orange Way.

The San Bernardino Line is currently the only line with service seven days a week. On weekdays, there are 15 round trips per day on the San Bernardino Line with about half of them during commute hours, but with close to hourly service in the mid-day. Travel time between Fontana and LA Union Station is about one hour and 15 minutes. On weekends, there are eight round trips on Saturday and four on Sunday. The SCRRA has plans to nearly double the amount of service on its lines over the next 20 years.

Terminals - Intercity Transportation

Buses

There are two existing bus transit terminals in the City of Fontana; the Fontana Metrolink Station and the South Fontana Transfer Center. Both serve as locations where numerous Omnitrans routes intersect with timed transfer opportunities (i.e., schedules of the routes are coordinated to facilitate transfers with limited waiting).

The Fontana Metrolink Transfer Center is located off-street at the southwest corner of Orange Way and Sierra, adjacent to the Metrolink



Station. Nine routes serve the facility; Routes 10, 14, 15, 19, 20, 61, 66, 67 and 71. Restrooms and other amenities for transit riders are provided at the Center.

The South Fontana Transfer Center is an on-street facility located at the intersection of Sierra and Marygold, adjacent to the Kaiser Hospital. Five routes intersect at this location; Routes 19, 20, 29, 61, and 71.

Park-and-Ride

A future park-and-ride facility is proposed near the interchange of the I-15 and 215 Freeways. Omnitrans is currently in negotiations with Caltrans concerning the closed rest stop along the I-10, between Cherry and Citrus. Omnitrans is proposing to convert the property into a "TransCenter" - a large park-and-ride facility for regional bus service. Express buses would access the facility directly from I-10, while local access from the parking would be from Valley Boulevard. The park-and-ride lot at the I-15/I-215 interchange is proposed in the southeast quadrant of the interchange. When these park-and-ride lots are developed, Omnitrans will adjust bus schedules and routes to serve them.

As major commercial and industrial developments are approved, a policy requiring provision for bus turn outs should be considered. In addition, small parking areas for car pooling vehicles, either close to proposed buildings for project employees, or in remote areas for others desiring to leave a vehicle and carpool to another location, should be considered. Special design treatments for waiting areas for buses or passenger pick up may also be incorporated as part of this policy.

Rail

There is a rail terminal in the City of Fontana served by the Southern California Regional Rail Authority (SCRRA) which operates the Metrolink commuter rail system. The nearest public rail access for longer-distance passenger train service is at the Amtrak station located in San Bernardino.

EXISTING CONDITIONS

Existing Roadway Systems

Fontana is served by three regional freeway facilities. The San Bernardino Freeway (Interstate 10) is an eight-lane east-west freeway, which traverses the southern portion of the City. The Ontario Freeway (Interstate 15) is an eight-lane freeway, which runs northeast-southwest through the northwest portion of the City and its sphere of influence.



The newly opened Foothill (State Route 210) Freeway is an 8-lane freeway that runs east-west in the northern part of the City connecting Fontana with the Interstate 210 Freeway in Los Angeles County in San Dimas. This freeway currently ends at Sierra Avenue, but is planned to be extended to the east to connect with the I-215 Freeway in the City of San Bernardino.

Fontana benefits from a generally regular north-south/east-west grid system of streets, with many gaps to major streets due to physical or man-made barriers, namely at the Union Pacific Railroad (UPRR) and the I-10 Freeway. The City's key north-south arterials include Sierra Avenue, Cherry Avenue, Citrus Avenue, all of which have interchanges with I-10. Sierra Avenue is generally a four-lane divided arterial, which serves the primary commercial areas of the City. Cherry Avenue is a four-lane arterial (divided in some segments) which serves an industrial area west of the current City limits and has an interchange with I-15. Etiwanda Avenue, which also has an interchange with the I-10 Freeway is the westernmost arterial in the City and its sphere of influence. Similarly, Alder Avenue is the easternmost arterial in the City and its sphere of influence.

Key east-west arterials include Jurupa Avenue, Slover Avenue, Valley Boulevard, San Bernardino Avenue, Arrow Boulevard, Foothill Boulevard, Baseline Avenue, and Highland Avenue. Valley Boulevard is a four-lane divided major arterial located immediately north of I-10 Freeway; it has direct ramps to and from I-10 west of Cherry Avenue. San Bernardino Avenue and Arrow Highway are regional arterials fronted by a mixture of uses. Foothill Boulevard (Historic Route 66) is a four-lane divided arterial, which is fronted largely by commercial developments. Baseline Avenue will be a 4-lane road in the mostly developing northern portion of the City. Highland Avenue (State Route 30) has been reconfigured to serve as the southern frontage road to the State Route 210 Freeway. San Bernardino Avenue, Arrow Boulevard, Baseline Avenue, Summit Avenue and Sierra Avenue provide interchange access to I-15. South of the I-10 Freeway, Slover Avenue is the key alternative paralleling the freeway and Jurupa Avenue is another key arterial that provides for east-west traffic movements. A map of the City's existing circulation network showing the number of lanes is included in the Appendix C.

Analysis of Current Conditions

A comprehensive database of current average daily traffic (ADT) volumes for streets and highways in the Fontana area was developed by collecting count data from various sources including the City of Fontana, the County of San Bernardino, and the California Department of Transportation (Caltrans). These counts are generally 2002 and 2003



ADTs. The arterial ADT volumes are tabulated by arterial and major segment and presented in Table A in the Appendix C. This table also indicates the designated functional classification and total number of two-way lanes on each roadway segment. Key observations from the assembled existing traffic volume data are also presented in Appendix C.

Intersections and Traffic Control/Operations System

There are currently a total of 104 intersections within the study area (city and sphere of influence) which are controlled by traffic signals. Of these, a total of 77 are controlled by the City of Fontana, four by the County of San Bernardino, in the sphere of influence area, and 23 are controlled by Caltrans. The Caltrans signals are located at the on/off-ramp terminals along the I-10, I-15 and SR-210 freeways and at the intersections on Foothill Boulevard, which is State Route 66. Of these traffic signals, 37 are on the County CMP signalized intersection list. A graphic illustrating the location of these intersections is included in the Appendix C.

The City of Fontana has a newly completed state of the art Traffic Management Center (TMC), located within the City Hall complex, that provides monitoring and control of the City's signal system and its coordination with the regional and neighboring jurisdictions' traffic control systems. The Fontana Advanced Traffic Management Information System (ATMIS) project that is currently being deployed by the City includes specialized services related to the design of software and hardware for the TMC. These services include procurement, integration, installation, and construction supervision for the development of the TMC. The TMC software and hardware provide for the expansion and control centralization of the City's existing traffic control systems and deployment of new and upgraded ITS elements. A major component of the ATMIS project is development of the software that includes a GIS-based graphical user interface and software for the connection to the Caltrans ATMS. This software provides for centralized monitoring and control of all deployed field elements from the operator's workstation. The ATMIS project started through an extensive systems engineering design cycle and started with an analysis of the needs and requirements for the TMC and a connection to local Caltrans District 8. Deployment of the TMC elements and communications subsystem has been phased to provide for current and future needs.

According to the City of Fontana's Traffic Signal System Conceptual Buildout Plan, approximately 140 additional traffic signals are planned to be constructed within the City and the Sphere of Influence area by the buildout of the Master Plan.

A detailed discussion of the City's major intersections, types of control, jurisdiction, volumes, and levels of service will be included in a Focused Traffic Study, which will be conducted per SANBAG Congestion



Management Program guidelines and will be available under a separate document.

Daily Traffic Levels of Service

A generalized daily level of service analysis was conducted for existing conditions for the City's arterial system using the ADT volumes presented in the previous section. Level of service analysis is used to evaluate congestion and delay on streets and highways. The relative level of congestion is evaluated on a scale from A through F. Level of Service A indicates free-flow conditions with no delay. Level of Service F indicates breakdown of the system with very long delays. Level of Service D is typically considered the worst acceptable level in an urbanized area.

Level of service analysis is typically conducted for peak hour traffic conditions at street intersections, which is where street capacity is constrained. For a citywide study of this nature, where peak hour data at each intersection are not available, the level of service is estimated based on the total daily traffic volume. Experience has shown that, taking intersection capacity constraints into account, and assuming a typical 10% peak hour peaking percentage, a divided arterial (opposite directions separated by a raised median or a painted two-way left-turn) can accommodate approximately 9,000 vehicles per lane per day, and an undivided arterial (opposite directions separated only by a painted line) can accommodate approximately 6,000 vehicles per lane per day.

The relationships between the traffic volume, capacity and level of service are shown below:

- Volume is 0-60% of capacity: Level of service A
- Volume is 61-70% of capacity: Level of service B
- Volume is 71-80% of capacity: Level of service C
- Volume is 81-90% of capacity: Level of service D
- Volume is 91-100% of capacity: Level of service E
- Volume is over 100% of capacity: Level of service F

The capacity of each arterial street was calculated using the above assumptions, and compared with the existing traffic volume to determine the level of service. This information is also presented in detail in Table A in the Appendix C. Assumed daily capacities, volume/capacity ratios and corresponding levels of service are presented by each arterial segment in this table.

Traffic on most of the City's arterials is operating at very acceptable levels of service. The following paragraphs describe those arterial segments that show level of service D or worse for the existing condition:



- ◆ **Sierra Avenue (Merrill Avenue to I-10)** – This segment of Sierra Avenue has a mix of LOS E and F. Sierra Avenue is a four-lane divided arterial (five lanes south of San Bernardino Avenue) serving the main commercial core of Fontana, and carries the heaviest traffic volumes in the City in the range of 32,800 to 57,600 ADT. The actual peak hour level of service along Sierra may be better than E, since the peak hour volume is less than 10% of the total daily traffic. However, the important observation of this analysis is that this segment of Sierra experiences congestion at the present time, and because much of the commercial development has occurred close to the right-of-way, there is little opportunity for increasing the capacity of Sierra Avenue without major street widening.
- ◆ **Sierra Avenue (at SR-210 and I-15 Freeways)** – Relatively high volumes on Sierra Avenue at the other two freeways, which range between 16,000 and 18,000 are beginning to exhibit over capacity conditions, but this is due to the current two-lane configuration and should be improved when Sierra Avenue is widened.
- ◆ **Cherry Avenue (Valley to I-10 Freeway)** – This segment exhibits LOS F conditions due to heavy freeway access volumes and predominance of trucks.
- ◆ **Cherry Avenue (Slover to Santa Ana)** – This segment operates at LOS F, but only has two lanes while carrying over 17,000 ADT and high volumes of trucks.
- ◆ **Citrus Avenue (Valley to Slover)** – In this segment, Citrus Avenue carries between 22,000 and 29,000 vehicles in a mostly two-lane street, which results in LOS F operation.
- ◆ **Citrus Avenue (Arrow to Merrill)** – Traffic volumes in this segment are about 28,000, while this 4-lane segment has a daily capacity of 24,000, resulting in LOS F.
- ◆ **Citrus Avenue (Randall to San Bernardino)** – Traffic volumes in this segment are about 22,300, while this 4-lane segment has a daily capacity of 24,000, resulting in LOS E.
- ◆ **Valley Boulevard (east of Sierra)** – This segment of Valley Boulevard carries 33,000 ADT and is Level of Service E. A significant portion of this traffic is generated by the commercial traffic on all sides of the intersection as well as heavy freeway access traffic. The intersection of Valley Boulevard and Sierra Avenue is by far the heaviest traveled intersection in the City.
- ◆ **Slover Avenue (Cherry to Citrus)** – Slover Avenue carries between 10,000 and 16,000 vehicles per day on a two-lane exhibiting mostly LOS F conditions. Conditions are also worsened by the presence of large volumes of trucks.



- ◆ **Slover Avenue (Sierra to Locust)** – Slover Avenue carries between 10,000 and 18,000 vehicles per day on a two-lane exhibiting mostly LOS F conditions. Conditions are also worsened by the presence of large volumes of trucks.
- ◆ **Highland Avenue (Cypress to Juniper)** – This segment carries 11,600 ADT on a two lane street just south of the newly completed freeway, which is related to lack of other east-west streets in the area and need for freeway access.
- ◆ **Foothill Boulevard (Beech to Almeria)** – This segment carries 32,900 ADT on a 4 lane street resulting in LOS E.
- ◆ **Jurupa Avenue (Live Oak to Sierra)** – This segment carries between 10,900 and 18,000 ADT, exhibiting LOS E and F conditions. Jurupa Avenue carries significant freeway bypass trips due to its interchange with I-15 and its connection to Riverside through Sierra. Traffic volumes are high on this segment for its two-lane configuration.

Current Deficiencies

Major Traffic Congestion Areas

The level of service analysis as presented above and detailed in Table A in the Appendix C, indicates several key existing problem areas, as discussed below:

- ◆ The first (and most significant) occurs on Sierra Avenue from I-10 to San Bernardino Avenue, and on Valley Boulevard east of Sierra. This is the highest volume intersection in the City, with over 90,000 daily trips. The area has the highest concentration of commercial developments, traffic from institutions such as Kaiser Hospital and the freeway access traffic. The improvements to the I-10 interchange have recently been completed upgrading this interchange to a single-point urban interchange, which should help ease congestion problems on Sierra Avenue.
- ◆ The second problem area includes all of the arterials approaching I-10 from the north and south. Traffic converges on Sierra, Citrus, and Cherry to access the freeway. All three of these streets presently carry heavy traffic volumes on the north side of I-10 exacerbated by high volumes of truck traffic from industrial developments. It is therefore unlikely that these interchanges could accommodate the traffic from significant new amounts of development north of the freeway unless the street capacities are increased or alternate routes are provided. As noted above, there is limited potential for widening Sierra Avenue north of I-10, but existing development would not appear to preclude widening Citrus and Cherry. In addition to improving these interchanges, new freeway connections and over-crossings are also essential to ease traffic congestion and help community connectivity



- ◆ The third significant area of congestion is on Jurupa Avenue from Live Oak to Sierra and to the east as indicated above. This is due to heavy freeway bypass traffic and lack of capacity on the two-lane Jurupa Avenue.

Through Traffic Problems

Traffic congestion on Sierra Avenue throughout its length results in spillover of traffic onto parallel streets. To avoid the congestion on Sierra Avenue, many drivers utilize either Juniper Avenue (west of Sierra) or Mango Avenue (east of Sierra) for north-south travel through much of the City. Juniper and Mango are both relatively continuous two-lane collector streets, except between Foothill Boulevard and Merrill Avenue (crossing the railroad tracks), where they are four-lane secondary highways. Juniper carries as many as 11,000 vehicles daily, and Mango carries as many as 9,500.

Both Juniper and Mango are primarily fronted by residential developments. The residential character of these streets is basically incompatible with the increasingly heavy traffic volumes. A policy decision should be made regarding the character of these streets over the long term, such as turning them into one-way streets.

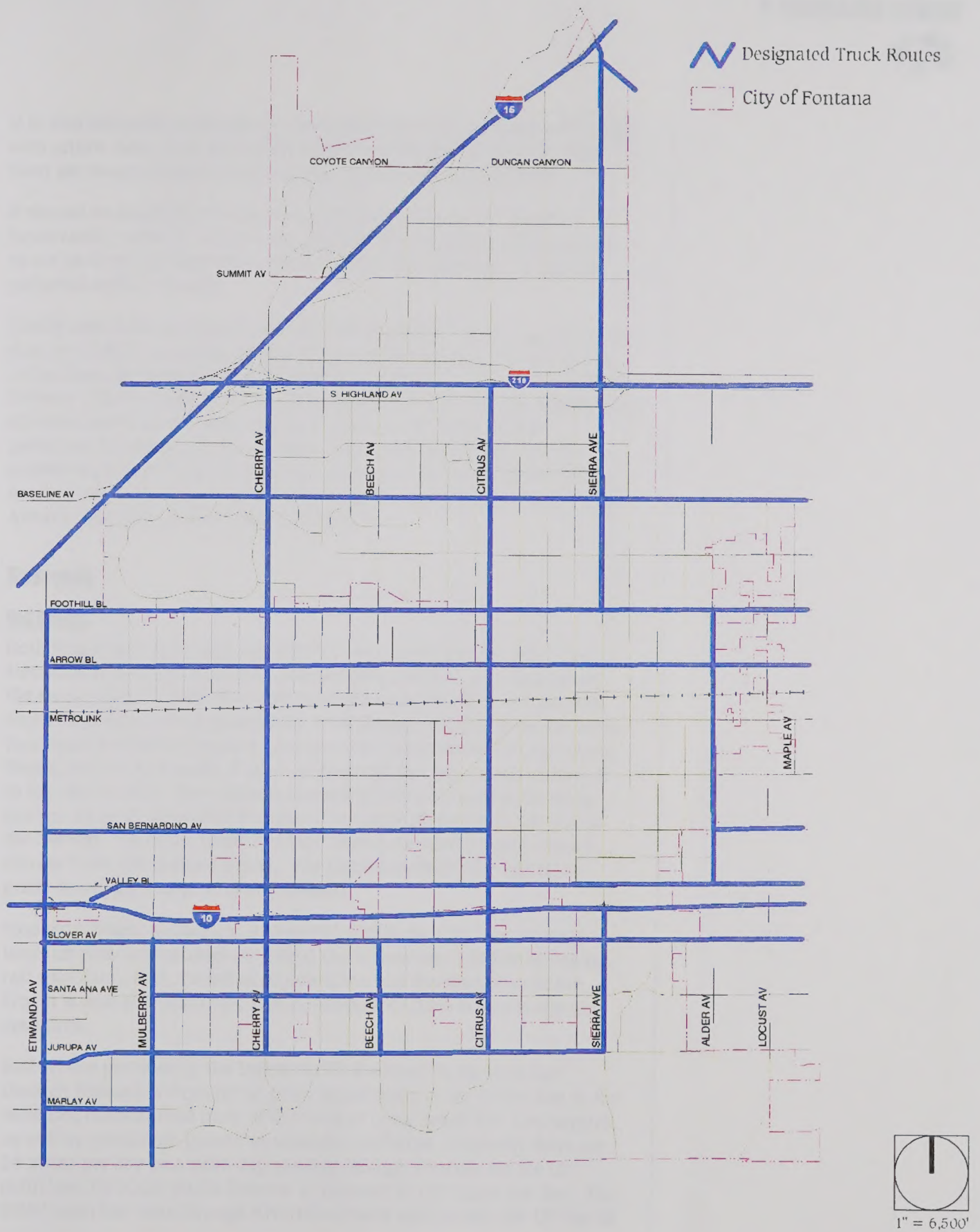
Trucks

Designated Truck Routes

The many industrial facilities within Fontana and neighboring communities create significant truck travel. The location of these industrial facilities results in a high volume of trucks intermixing with local residential traffic. These truck trips originate from the I-10, I-15, SR-210 and SR-60 freeways, as well as the neighboring communities via the arterials. Many of the arterials are not appropriately designed to accommodate the volume and size of trucks currently using these facilities. Heavy truck volumes at the freeway interchanges along the I-10 Freeway contribute to the congestion at those locations. The new and redesigned freeway interchanges are being designed to better accommodate the heavy truck volumes.

To optimize the circulation pattern and protect the residential areas within Fontana, certain arterials have been designated as truck routes. These arterial truck routes are illustrated in Figure 4-2, *Designated Truck Routes*, and should be designed in accordance with their roadway classification.

Designated Truck Routes





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It is also advisable to design the heaviest truck volume streets with larger curb return radii, such as 50-foot radius, and median islands set back from the intersections to accommodate truck turning maneuvers.

It should be noted that Sierra Avenue, between Valley and Foothill Boulevards, north of I-10, has not been designated as a truck route due to the need to maximize this roadway's capacity, especially in light of projected traffic volumes.

Cherry and Citrus Avenues have been designated as truck routes because they are close to trucking centers. For the most part they provide direct connections between the San Bernardino Freeway (I-10) and the Foothill Freeway (SR-210) and there is more opportunity for roadway widening to accommodate the increased size and number of vehicles. Again, particular attention should be paid to minimizing the noise and air quality impacts of these vehicles upon adjacent residential uses. Other north-south truck routes include Etiwanda Avenue and portions of Alder Avenue, and Sierra Avenue north of SR-210.

Railroads

Rail Service

Both freight and passenger rail services are provided in the City. The Metrolink commuter rail service was described earlier. It is located on the former Santa Fe rail line, now operated by the Burlington Northern Santa Fe (BNSF), which passes east-west through the City between Arrow Boulevard and Merrill Avenue. Amtrak service is provided on the Union Pacific rail line just south of the I-10 Freeway, but the nearest station is in San Bernardino. The roadway crossings on the Union Pacific main line are all grade separated because of the close proximity of the line to the freeway. All of the roadways that extend over the freeway remain elevated over the railroad tracks. The Metrolink/BNSF line has all at-grade crossings, except at Cherry Avenue.

Extensive freight rail service is provided within the City. The existing land use plan concentrates industrial use in locations already served by rail spur lines. With the influx of new industrial developments in the City, it is desirable that these new developments have access to the rail spur lines.

Rail service provided by the Union Pacific Railroad on its main line through Fontana is expected to grow significantly in the future due to the increased international trade at the Ports of Long Beach and Los Angeles, as well as population growth in southern California. Currently there are 24 trains per day on a peak day passing through Fontana on the UP main line. By 2025, this is forecast to increase to 132 trains per day. The BNSF main line runs through Riverside County and crosses the UP line in



Colton. It will carry the major growth in rail traffic associated with the Ports. Growth in train traffic on the other rail lines and spurs in Fontana will be limited to the needs of the local industrial users which need rail service.

PROJECTED TRAFFIC VOLUMES

Focused Travel Demand Model

As part of this circulation system analysis, a focused travel demand model was developed to analyze the traffic impacts of projected development within the City at "buildout" of the proposed General Plan land uses. The latest version of the RIVSAN CTP Model was obtained from SCAGs Inland Empire Office. This model currently has a year 2000 base-year and year 2030 as regional horizon year for the future. Approximately 40 traffic analysis zones (TAZs) in this model constitute the City of Fontana and the Sphere of Influence (study) area. These zones were disaggregated to approximately 120 TAZs for planning purposes. In coordination with the General Plan team and City staff, land use quantities (in acres) were estimated for the Buildout conditions of the study area for each of the TAZs. These land use quantities were then converted to socio-economic data compatible with inputs to the CTP Model using sub-regionally acceptable average factors and mid-point densities for each land use type. These model input data include the number of single and multiple dwelling units, population, retail and total employment. The CTP model highway network was also obtained from SCAG and refined by adding secondary and collector streets and zonal connectors to represent a more detailed network consistent with the finer zone system. Zone maps showing the original and disaggregated TAZs, the list of input data (Table B), and the original and refined highway networks are provided in the Appendix C.

The model input data for the disaggregated TAZs were submitted to SCAG Inland Empire Office. From these data, SCAG generated trips for all study area zones and substituted for the original study area TAZs. The model was run using these new buildout trips in the project area and the estimated 2030 trips from all other zones in the model representing the southern California region. Trip generation, distribution and mode choice functions for the model were carried out by SCAG and the four-period trip tables (AM, PM peak, mid-day and night-time) were provided to the General Plan team. The team performed traffic assignments for all four periods and combined them to generate total daily volumes. These daily volumes were assigned to the City of Fontana's future planned circulation network. The results were analyzed in detail and entered into a table similar to the existing conditions analysis. These projected



buildout condition volumes are also indicated in Table A in the Appendix C, along with the future classification, number of lanes and capacities for each roadway segment. Similar to existing conditions, projected volumes were divided by the assumed future capacities to identify the future volume/capacity ratios, LOS, potential future capacity deficiencies and expected congestion problems. Results of this analysis are also shown in Table A in the Appendix C.

Buildout Traffic Forecasts and Operating Conditions

The following paragraphs illustrate the key observations from the analysis of projected traffic conditions for the buildout of the General Plan:

- ◆ The I-10 Freeway is projected to carry between 200,000 to 250,000 daily trips within Fontana.
- ◆ SR-210 and I-15 are also projected to carry close to 200,000 daily trips each in the vicinity of the study area.
- ◆ Similar to existing conditions, the north-south arterials are expected to be more heavily traveled and congested than the east-west arterials. This is generally due to the fact that there are more east-west streets, more freeways to carry the regional trips, and more continuity than the north-south streets.
- ◆ With the completion of the SR-210 Freeway, it is expected that volumes on the parallel arterials will still increase, but will remain well within their buildout capacity. For example, projected volumes on Baseline Avenue and Highland Avenue may increase by as much as 250% to 300%, but the levels of service are expected to generally be no worse than LOS C on these arterials.
- ◆ Foothill Boulevard, Merrill Avenue, Arrow Boulevard, Randall Avenue and San Bernardino Avenue are expected to experience only moderate growth in traffic, generally in the range of 25% to 50% on the highest growth segments. These arterials are expected to operate well within acceptable conditions.
- ◆ With the development of the land uses in the City's northern portion, traffic volumes in this area are expected to increase substantially. Traffic on Sierra Avenue near the SR-210 Freeway is expected to be as high as the volumes near the I-10, both being around 70,000 to 72,000 ADT. The projected increases in ADT on Sierra Avenue is expected to be as much as 600% to 700% from today's volumes.
- ◆ Alder Avenue is expected to carry heavy traffic volumes from I-10 to Randall Avenue, which will potentially exceed the capacity of its ultimate 4-lane configuration.



- ◆ Cherry Avenue, Citrus Avenue, and Sierra Avenue will experience heavy volumes and congested conditions near the SR-210 Freeway, suggesting the need for additional freeway crossings.
- ◆ In the City's southern portion considerable growth in traffic volumes is expected surrounding the I-10 Freeway. In particular demand for crossings of I-10 is expected to increase substantially as well as the demand for travel on Valley Boulevard, which could be as high as 42,000 east of Citrus.
- ◆ Jurupa Avenue is expected to experience more than 100% growth in traffic volumes, but is expected to operate acceptably with the ultimate capacity provided by the 4 to 6 lane configuration.

RECOMMENDED SYSTEM IMPROVEMENTS

General Policies

As demand for the City's major arterials increases, limiting interruptions to smoothly flowing traffic becomes even more important. Reducing the number of vehicles slowing in traffic to enter driveways by instituting a policy to consolidate driveways and limit access off major arterials is one way of accomplishing this. Replacing many individual driveways with a central mid-block access with connections between center's parking areas provides off-street circulation of slower vehicles, while traffic along major arterials continues at increased speeds. Candidates for this type of limited access policy include Sierra Avenue, Citrus Avenue, and Cherry Avenue, between I-10 and the SR-210, and Highland Avenue, Baseline Avenue, Foothill Boulevard, Valley Boulevard and Slover Avenue.

In addition, a policy to provide bus turnouts where feasible along these arterials would greatly aid traffic flows and safety by removing stopped vehicles from travel lanes, thus eliminating a momentary loss of capacity.

In order to alleviate existing and potential future congestion on arterial approaches to freeway interchanges, it is recommended that arterial segments that are located between freeway ramps and the next parallel facility, on either side of the freeway, be planned with one additional lane in each direction beyond their designated functional classifications. These lanes will function as "auxiliary lane" for more freeway access capacity and more efficient traffic flow between the ramps and the adjacent intersections and can serve as dedicated right-turn lanes at the next intersection.



System Improvements

The recommended future arterial street classifications and new connections are presented in Figure 4-3, *Recommended Circulation Master Plan*. These recommendations were developed based on discussions with City staff, existing system uses, identified existing congestion problems, and projected future traffic volumes and potential deficiencies, as discussed in previous sections.

To provide for continuous traffic flow throughout the City and to and from the City and the neighboring areas, a series of roads and road segments are recommended for construction. These recommendations are listed in Appendix C.

In addition to arterial connections and upgrades, additional crossings of the local freeways are anticipated. These include two interchanges with I-10 Freeway, one at Alder Avenue and one at Beech Avenue. Both locations are recommended to have full interchanges with the I-10 Freeway. Due to the projected traffic volumes at current interchange locations and the fact that existing ADT on Sierra Avenue north of I-10 is currently over capacity and will worsen in the future additional parallel interchange facilities are recommended. This entire north-south corridor from Etiwanda Avenue to Alder is in critical need for north-south capacity and connectivity. The present congested conditions will significantly worsen if additional freeway interchanges and grade separations are not provided across the I-10 freeway and the Union Pacific Railroad tracks.

The proposed interchange at Alder Avenue should alleviate some of the congestion at Sierra Avenue in addition to serving planned residential and commercial land uses in this area. A proposed Beech Avenue interchange is expected to alleviate anticipated congestion at both Cherry Avenue and Citrus Avenue. In addition there are existing ramps at this location north of the freeway which were formerly used as a road side rest. These ramps may be useful as part of a future park-and-ride facility, with potential direct access to the future carpool lanes on the I-10 Freeway.

In addition, freeway over-crossings (no interchange ramps) are also recommended at Mulberry Avenue and Cypress Avenue for enhanced community connectivity and relief of potential over-capacity conditions at the other I-10 interchanges along the corridor. Also Poplar Avenue is proposed to have an over-crossing at the I-10 Freeway.

Currently, Cypress Avenue is designated as a 4-lane secondary highway to be built over the recently completed SR-210 Freeway. This segment is planned to connect South Highland Avenue to Sierra Lakes Parkway in the future. Almost the entire area bounded by Citrus Avenue and Sierra



Avenue to the east and west and Sierra Lakes Parkway and South Highland Avenue to the north and south is designated as freeway-oriented commercial land uses in the General Plan.

Cypress Avenue is projected to carry between 5,000 and 6,000 daily traffic in this area. The aforementioned commercially designated land uses are projected to be very traffic intensive and will require an adequate circulation network for support. Traffic projections have also indicated that Sierra Avenue will carry nearly 68,000 ADT over the SR-210 Freeway, while Citrus Avenue will carry over 52,000 ADT in this area. Both Citrus and Sierra have interchanges with the SR-210 freeway and will be used for regional as well as local circulation traffic. The projected volumes on Sierra and Citrus crossing the SR-210 Freeway indicate traffic operation by as much as 20% over capacity for future conditions. This segment of Cypress in this traffic intensive area will serve as a vital circulation link for both local and regional traffic as well as to provide a critical community connectivity link across the SR-210 Freeway. Based on the above, it is recommend that Cypress Avenue be extended over the SR-210 Freeway as a 4-lane secondary arterial with no interchange ramps.

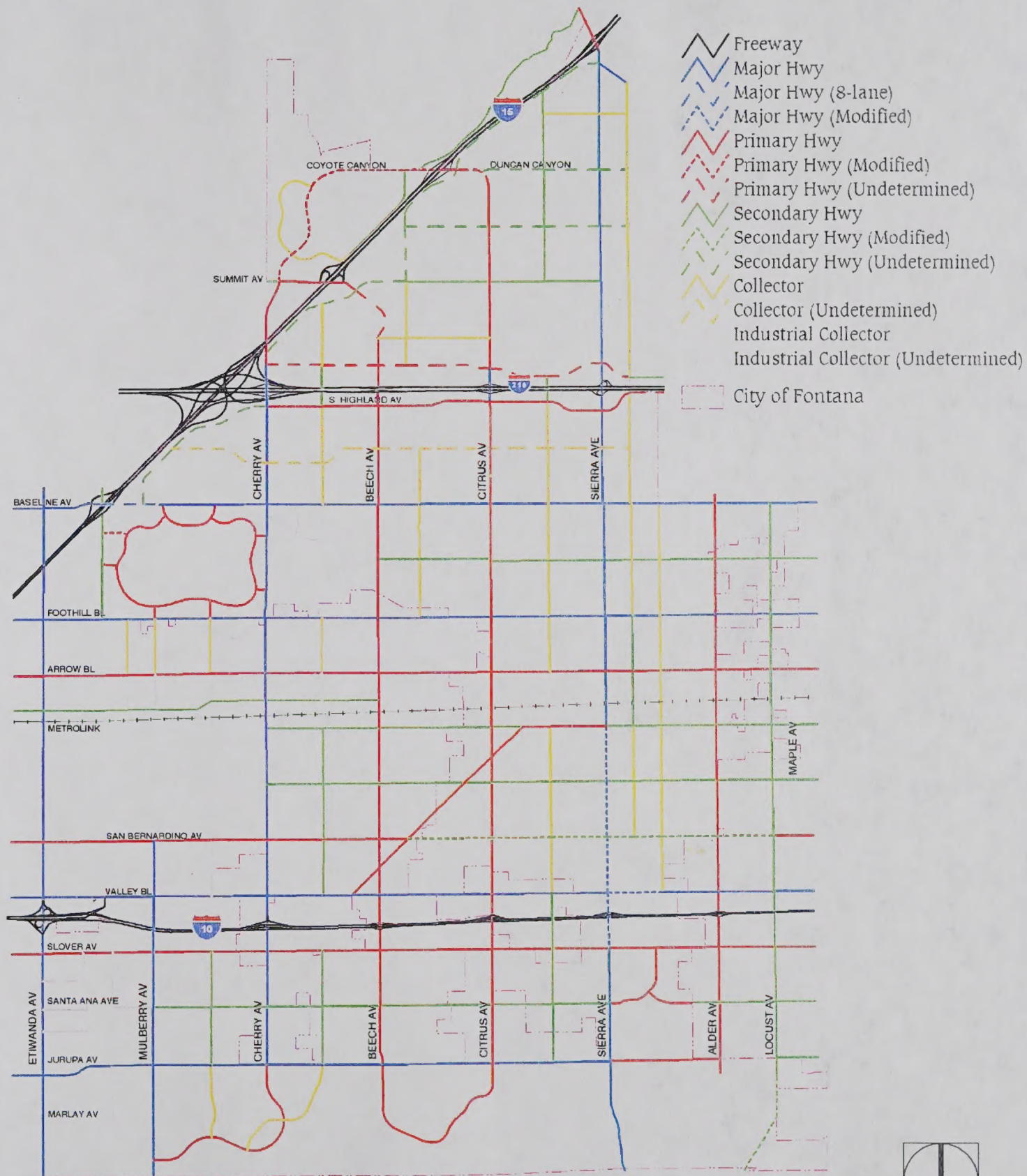
ISSUES, GOALS, POLICIES & ACTIONS

The Circulation element is based on a set of circulation related goals, which reflect and are designed to, support the citywide objectives of the General Plan. These goals, acknowledge the changing economic, social and environmental conditions of the City of Fontana as well as the surrounding region, and the current and anticipated needs of the community. The goals and policies express the City's position on circulation and development in Fontana. The goals and policies relate directly to circulation issue areas that are discussed in following sections. These issue areas are:

ISSUE #1 MAJOR THOROUGHFARES AND TRANSPORTATION ROUTES

Discussion: The City's major thoroughfares and transportation routes, which are the network of local and arterial streets, should be designed such that they will provide the necessary hierarchy and capacity for local property access, intra-city travel and adequate access to regional transportation facilities. The arterial street system should provide adequate capacity to accommodate the traffic generated from the buildout of the proposed general Plan land uses and regional traffic within acceptable levels of service. The arterial system should provide seamless connectivity among all sub-areas of the City. Advanced technologies in traffic control and operations should be employed to maximize the capacity and efficiency of the arterial system.

Recommended Circulation Master Plan



1" = 6,500'

**GOAL # 1**

A balanced transportation system for Fontana is provided that meets the mobility needs of current and future residents and ensures the safe and efficient movements of vehicles, people and goods throughout the City.

Policies:

- 1) Plan for the provision of a variety of street classifications specifically designed to serve the various traffic needs in the area, including major highways, primary highways, secondary highways, collector streets, industrial collectors and local streets.
- 2) Limit direct access from adjacent private properties to arterials to maintain an efficient and desirable quality of traffic flow.
- 3) Whenever possible, prohibit new residential driveway access to arterial roads.
- 4) Design each arterial and its terminal facilities including parking with sufficient capacity to accommodate anticipated traffic based on intensity of projected and planned land use in the City and the region.
- 5) Regulate the intensity of land uses to keep traffic on any arterial in balance with roadway capacity by requiring traffic studies to identify local roadway and intersection improvements necessary to mitigate their traffic impacts.
- 6) Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets and alleys for access to the development and its parking.
- 7) Design, monitor traffic flow, and employ traffic control measures, including signalization, limiting access and access control, exclusive right and left turn-turn lanes, lane striping, and signage to ensure City streets and roads continue to function as required.
- 8) Provide for safe operations of all modes of transportation including auto, truck and bus traffic, passenger and freight rail service, pedestrians, bicycles, and other modes by adhering to national design and safety standards and uniform practices. Permitted driveways along arterials shall provide for turn-around or hammerhead turn in order to facilitate vehicle access to arterials. Vehicle or truck backing on to arterials is prohibited.
- 9) Coordinate street system improvements and traffic signalization with regional transportation efforts in particular on roadways that are at



the City's boundaries, are shared with neighboring jurisdictions, and/or are part of regionally significant corridors including those that are on Congestion Management Plan routes.

- 10) Coordinate arterial street design standards with neighboring jurisdictions within the City's sphere of influence to maintain and/or develop consistent street segments.
- 11) All streets designed after the adoption of the General Plan will be planned to function at level of service (LOS) C or better, wherever possible. Improvements to existing streets will be designed to LOS C standards whenever feasible.
- 12) Provide new bus turnouts along appropriate arterials based on and in coordination with, local and regional transit providers' bus routes and major stops.
- 13) Plan for the design and construction of new freeway interchange facilities on Interstate 10 at Alder Avenue and Beech Avenue.
- 14) Plan for the design and construction of new arterial over-crossings on Interstate 10 at Mulberry Avenue, Poplar Avenue and Cypress Avenue to provide for mobility, community connectivity and efficient access to safety vehicles.
- 15) To provide for mobility, community connectivity plan for the design and construction of an arterial over-crossing on State Route 210 at Cypress Avenue.
- 16) Cooperate with regional agencies and support planning and construction of the remaining segments of the State Route 210.
- 17) Maintain and improve intersection capacity by implementing ultimate intersection geometries through the use of left-turn pockets and dedicated right-turn lanes wherever feasible.
- 18) Prohibit parking, stopping, and limit driveway access to arterial roads where feasible in accordance with uniform industry standards and practices.
- 19) Plan, design and construct streets in residential communities in accordance with uniform industry standards and practices to maintain appropriate traffic speeds and discourage through and by-pass traffic.
- 20) Limit parking and residential driveway access to collector streets.
- 21) Whenever practical, prohibit surface drainage facilities and cross drains on new arterial roadways to maintain efficient vehicular flow.



- 22) Implement traffic signal systems and intelligent transportation systems (ITS) components (not limited to signal coordination, highway advisory radio, closed circuit television, emergency vehicle signal preemption, etc.) along arterial roadways and sub-areas, in accordance to the City's Traffic Signal System Conceptual Buildout Plan and in compliance with regional and appropriate ITS Architecture Master Plans.
- 23) Require street dedications from adjacent properties when the land is necessary for additional transportation capacity and enhanced mobility for the welfare of the community.
- 24) Require new streets to comply with adopted geometric standards for major, primary and secondary arterials at intersections.
- 25) Protect levels of service on all parts of the Circulation Element through the use of medians, roundabouts, and other traffic calming measures.

ISSUE #2 PUBLIC TRANSIT, TERMINALS AND INTERCITY TRANSPORTATION

Discussion: Public transportation plays an important role in providing a well-balanced transportation system for the City. A well planned and efficient public transportation system provides an essential primary mode of transportation to those without access to automobiles and an alternative mode of travel to the motorists to help reduce the demand and congestion on the City's street network. The various modes of public transportation including bus, commuter rail, demand responsive transportation, etc. should provide efficient connectivity and integration via coordinated park-and-ride facilities and multi-modal terminals.

GOAL # 2

A regional network of multi-modal transportation facilities including an improved citywide public transit system is provided that ensure the safe and efficient movement of vehicles, people and goods throughout the City of Fontana and to and from the region, and provides mobility to all City residents and helps reduce vehicular trips City-wide.

Policies

- 1) Provide appropriate transportation terminal facilities for inter-city and regional travel by public and private transportation modes.
- 2) Continue to support the regional bus system to provide intra-city service, inter-city service to major employment centers, and connection to other regional transportation transfer points.



- 3) To encourage transit ridership and transportation demand management including carpooling, required vanpool parking spaces, plan for the provision of additional transportation centers to be used as a park-and-ride for ridesharing, high-occupancy vehicle lanes, regional bus and passenger rail services.
- 4) Continue to coordinate transit planning with the Southern California Association of Governments (SCAG), the San Bernardino Associated Governments (SANBAG), the Los Angeles County Metropolitan Transportation Authority (MTA), the Southern California Regional Rail Authority (Metrolink), Omnitrans and adjacent communities.
- 5) Recognize alternative and private transportation services (vans, buses, shuttles, taxis and limousines) as an integral part of public transportation.
- 6) Coordinate with local and regional human service agencies and public schools that provide mass transit services to reduce duplication of transportation services.
- 7) Where needed and appropriate, require new development to provide transit facilities and accommodations, such as bus shelters and turn-outs, consistent with regional agency plans and existing and anticipated demands.
- 8) Ensure accessibility of disabled persons to public transportation facilities and services in accordance with all Americans with Disabilities Act (ADA) regulations.
- 9) Encourage commuters and employers to reduce vehicular trips by offering incentives such as reduced price transit passes and preferential parking for ridesharing.
- 10) Investigate and implement new opportunities to further plan, develop and finance demand responsive transit service for the elderly, handicapped and recreational purposes.

ISSUE #3 TRUCKS

Discussion: Truck traffic is a significant component of the overall transportation system in the City of Fontana. Many of the City's vital industries rely heavily on regional and local truck transportation. Large volumes of heavy duty trucks on the City's transportation system and regional access facilities result in additional congestion and accelerated deterioration of the infrastructure.

**GOAL #3**

A circulation system is provided that reduces conflicts between commercial trucking, private/public transportation and land uses.

Policies

- 1) Provide designated truck routes for use by commercial trucking that minimize impacts on local traffic and neighborhoods.
- 2) Provide appropriately designed roadways for the designated truck routes including designated truck routes for large STAA trucks that can safely accommodate truck travel.
- 3) Develop appropriate protection measures along truck routes to minimize noise impacts to sensitive land uses including but not limited to residences, hospitals, schools, parks, daycare facilities, libraries, and similar uses.
- 4) Encourage the development of adequate on-site loading areas to minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways.

ISSUE #4 RAILROADS

Discussion: Freight and passenger rail system have been an integral part of the City of Fontana's transportation network for decades. Increased traffic demand on the rail system as well as the City's street network will create opportunities for increased conflict between the two modes.

GOAL #4

Rail facilities continue to develop while minimizing the impacts to land uses and arterial circulation.

Policies

- 1) Work cooperatively with the railroad companies to maintain a safe and efficient rail system within the City.
- 2) Establish connections between inter-city rail and major activity centers to improve freight transfers and provide passenger service.
- 3) Develop safe and efficient design standards to minimize the impact of at-grade arterial railroad crossings.
- 4) Provide appropriate noise attenuation measures for new residential developments.



- 5) Work with regional agencies to identify the impacts of increased rail and freight traffic due to Alameda Corridor and Alameda Corridor East on traffic and circulation across corridor rail facilities and work towards implementation of appropriate circulation improvements.

IMPLEMENTING THE CIRCULATION ELEMENT

The City's commitment to the goals and policies of the Circulation Element is realized through plan implementation. Policy must be translated into action. The following are relevant implementation tools, which may be used to effectuate plan goals and policies.

Police Powers

The State of California authorizes "police powers" to local jurisdictions to help protect the health, safety and welfare of the citizens. The manifestation of the City's regulatory police powers is the Municipal Code. Sections of the Municipal Code, which will help implement the Circulation Element include the Subdivision, Building, Zoning and Public Works Codes.

Street and public facility standards specified in the Circulation Element will be required in the development process through the regulatory powers of the Municipal Code, on a project by project basis. The following specific methods of implementation are found in the Municipal Code.

Specific Plans

The State of California also authorizes the adoption of Specific Plans by local jurisdictions to assist in the orderly implementation of the General Plan. The Specific Plan is a regulatory tool available for addressing the unique development characteristics of a particular area within the City. While Specific Plans must be consistent with the General Plan, they can provide guidelines at a level of detail that are inappropriate to the General Plan. Each Specific Plan is intended to be generally consistent with the development standards, goals and policies of the Circulation Element.

Zoning

The Zoning Code is one of the documents which assists in implementing parts of the Circulation Element. The Zoning Code prescribes allowable uses and development standards, including building height, density, bulk, setback, coverage, landscape requirements, parking standards, and off-street loading and service requirements.



Other Implementation Methods

California Environmental Quality Act (CEQA)

All projects as defined by CEQA are subject to environmental review to determine if the activity will have a significant effect on the environment. If a possible significant effect is determined, the City prepares an initial study to decide whether the project warrants an Environmental Impact Report (EIR) or Negative Declaration. In either case, the City may apply conditions to the Project which will mitigate the impacts on the transportation system. The conditions help to implement the goals and policies of the Circulation Element.

Congestion Management Plan (CMP)

All projects that meet the threshold for Countywide CMP are subject to preparation of CMP Traffic Impact Studies per San Bernardino Associates Governments (SANBAG) CMP Guidelines. CMP TIAs identify various local and regional circulation system improvements and impact shares as conditions for the development of the subject project. The conditions help to implement the goals and policies of the Circulation Element.

Caltrans Project Development Procedures

The Caltrans Project Development Procedures, which include Project Study Reports (PSR), Project Report (PR), preliminary engineering (PE), and plans, specifications and engineering estimates (PS&E) are tools for implementing improvements consistent with the City's Circulation Element on the state-owned transportation facilities such as freeways, interchange ramps, freeway over-crossings, park-and-ride facilities, and improvements to conventional state highways (surface street routes).

Short and Long-Range Transit Plans

These are programming documents developed by local and regional transit operators that provide means to implement some of the multi-modal elements of the Circulation Element including new or improved bus routes or increased service, transit stations, etc.



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Chapter 5

Housing Element





The Housing Element is currently being reviewed by the State Department of Housing and Community Development.

Chapter 6 Community Design Element



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Chapter 6

Community Design Element

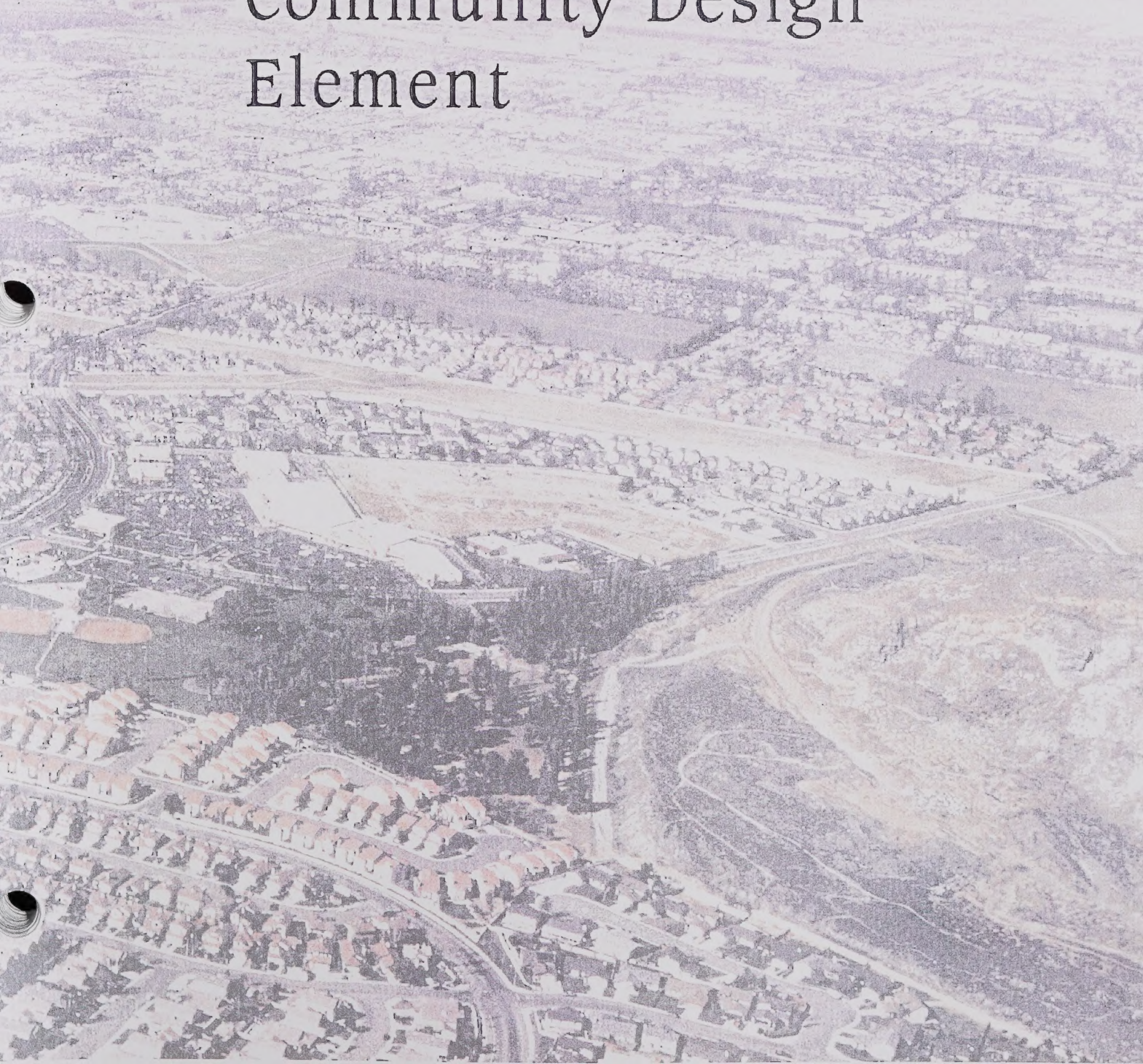




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Chapter 6. Community Design Element

INTRODUCTION

Creating a Sense of Place

The City of Fontana is enhancing its image by building on its strengths and planning for the future. High quality community design occurs through proactive planning and careful attention to detail. Rather than allow rapid growth to divide the City into isolated sub-areas, this element directs the creation of a more unified Fontana, establishing visual connections and guiding new development. The intent of the goals, policies and actions in this Community Design Element is to achieve a sense of place at the multiple scales at which the community functions.

Enhancing the General Plan

By state law, a Community Design Element is an optional part of the General Plan, but the City of Fontana has long recognized the importance of community appearance and design to its vitality and future. Through updating the goals and policies of the 1990 Community Design Element, the City recognizes that creating a positive community image is an on-going process that requires sustained commitment.



Fontana's Metrolink Station is a functional symbol of the City's transportation heritage and a key link to the region.



Background: From an Industrial Base to a Diverse Community

Like many cities in the Inland Empire, Fontana has experienced major growth and transition. Its previous image as an industry town has quickly given way to a diverse community with rapid residential growth to the north, an older downtown and core area in transition, and an industrial area coexisting with a planned residential community in the south. The challenge of this plan is to enhance Fontana's community image amid this diversity and change.

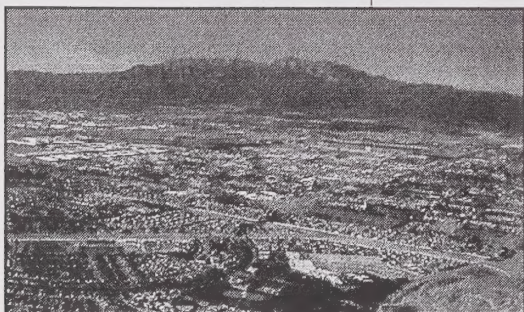
As the City begins to develop the extensive vacant land in its northern areas, it has a tremendous opportunity to guide development patterns that enhance its identity and build vibrant neighborhoods and activity centers. Over time, the City will also have the opportunity to better integrate the planning of unincorporated areas into its policy framework. Finally, the existence of many vacant parcels suitable for in-fill development gives the City the chance to strengthen its core and improve the compatibility of adjacent land uses.

ACHIEVING THE VISION: CHARACTER AND IMAGE

Creating Identity from Diversity

The overriding vision of Fontana is to create a strong community identity from a diverse base, while at the same time avoiding a sterile sameness. The City's physical character consists of an older downtown, both old and new neighborhoods, a large industrial base, major freeways, a strong grid of arterial highways, and a backdrop of natural open space to the north and south. From this context comes the vision for Fontana's community design:

- ◆ An aesthetically attractive City unified by selected design features;
- ◆ Clearly marked formal entries at key points that identify community gateways, edges and boundaries;
- ◆ Vibrant downtown and Civic Center areas that are the heart of the City and provide a mix of activities, services and entertainment destinations;
- ◆ Enhanced views of the City from freeway corridors that are attractive, diverse and appealing;
- ◆ Unimpeded views of the San Gabriel and San Bernardino Mountains and the Jurupa Hills;
- ◆ Development project standards based on quality as well as creativity and flexibility of design; and



An aerial view of the northern area of Fontana.



- ◆ Development in the sphere of influence that is consistent with this vision and City policies for achieving this vision so that eventual integration into the City is a seamless process.

PLAN COMPONENTS: WHAT MAKES UP COMMUNITY DESIGN?

The Scale of Urban Design

When people think of design, they usually think at a scale no larger than an individual building. However, community design exists at the street, neighborhood, district and city level, and requires careful planning at multiple scales to carry it out. In general, effective urban design helps to unify a city visually and to create a distinct sense of place in special areas of a city.

Unifying Principles of Urban Design

Because of the varied scales at which a community functions, planners and designers need to work from certain unifying principles. A commonly used model of urban design comes from theorist and author Kevin Lynch (*The Image of the City*, 1960). His overriding idea was for cities to create a more memorable identity by enhancing the image of their major elements. He divided the city into the following functional areas, each of which contributes distinct design potential:

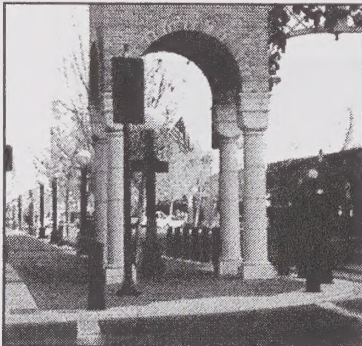
- ◆ **Paths** – A city is often viewed from and defined by the paths that run through and around it. Paths connect activity areas and can have an important identity of their own. In a large sense, perceptions of Fontana are formed from the major paths – mainly arterial highways – that pass through it and from the views into the community from highway corridors that traverse it.
- ◆ **Landmarks** – Visually prominent buildings, important cultural centers or special natural features serve to give a city a distinct image and are important amenities. Fontana is working to preserve and create landmarks within its downtown area as well as preserving its excellent views of nearby hills and mountains.
- ◆ **Edges** – Boundaries are important in urban design because they signal one's arrival at a new land use, area or feature. If edges are clearly marked, such as in the use of entry signs or monuments, a city's identity is strengthened. The City of Fontana is paying attention to its many edges with entry statements and improved signage at key intersections.
- ◆ **Nodes** – Activity centers or concentration of uses provide land use diversity and interest. Shopping centers, transportation hubs,



Distinctive street trees and landscaped median strips give Baseline Ave. near the I-15 a strong and attractive identity



Hunter's Ridge, one of Fontana's several specific plan neighborhoods, uses design elements and entry statements to achieve its identity as a special district or area.



An example of a unified, consistent streetscape.

historic areas, and town centers serve important functions for residents and visitors alike. The City of Fontana has made great strides in creating a major downtown node with its revitalization program, including the Civic Center Campus and Downtown Overlay District.

- ◆ **Districts** – Special areas of the city have their own visual and functional identity and work against the visual monotony seen in many cities today. In selected sub-areas, cities can enhance identity through the use of specialized design treatment, signage, street furniture, and landscaping. The City of Fontana has frequently used the district concept with the approval of several specific plans that offer distinct qualities not found elsewhere in the City. The downtown core is another example of how the City is working to reinforce the unique characteristics of this district.

The Importance of Streetscapes

Streetscapes refer to the visual image created by the buildings, signs, street furniture, landscaping, spaces and other features along a street. In our automobile-dominated environments, these images are most often seen from a moving vehicle. By unifying the treatment of one or more of these elements, a streetscape can have a coherent image and one that makes a strong statement within a city. Sadly, many cities give scant attention to their streetscapes, resulting in a visually disjointed experience as one moves along the street. In Fontana, streetscapes are of crucial importance to the image of the City because of the freeways and arterials that shape the pattern of movement within and through the City. The City's streetscape improvement plan focuses especially on Foothill and Valley Boulevards and Sierra Avenue.

EXISTING CONDITIONS

Current Community Design Conditions

The challenge in Fontana is to create a strong community image where none has dominated in the past. Currently, there is a shortage of unifying community design elements, but the City is moving to address this area. There are several City monument signs at key entry points, and a banner program has been initiated in parts of the City. Medians exist along some stretches of major corridors, and many gaps remain to be filled. The City's logo appears on some street signs and in many public facilities. Plans for downtown revitalization and design guidelines for major arterials are in process.



A Downtown in Transition

Downtown Fontana is centrally located and contains many of the City's major civic buildings and historic architecture. It also functions as a major transportation hub. With mature landscaping and several adjacent parks, the downtown has a base upon which to build a vibrant, focused area. The abandoned Pacific Electric Railroad right-of-way represents an opportunity to tie the City together visually and, at the same time, strengthen a physical connection to the Downtown Area.



Mature landscaping and notable community facilities along Sierra Avenue provide the base for the downtown revitalization plan.

The revitalized downtown will contain a variety of architectural styles with shopping areas reminiscent of early commercial "Main Streets." Through the implementation of a unifying streetscape improvement plan, quality architectural guidelines, and a variety of retail, civic and recreational uses, the area can be transformed into a pleasant and walkable downtown, and a destination for entertainment, dining and the arts.

Diverse Architectural Themes

Because Fontana experienced its major growth since 1960, the City lacks a clearly defined architectural character. Some important architectural remnants of the City's agricultural and industrial past remain and the downtown area has some notable older architecture. An architectural and design theme for the City would, therefore, be broad and inclusive, featuring Spanish Colonial, Italian/Mediterranean, Art Deco/Streamline Moderne, Craftsman Bungalow, agricultural, and Main Street Commercial styles. This array of styles can be used to highlight distinctions throughout the City.



The historic Sunkist packing warehouse near downtown is a reminder of the City's agricultural heritage

A City Defined by Transportation

Fontana has been influenced significantly by the local and regional transportation system. Accessed by major freeways, intersected by large commercial arterials and crossed by railroad lines, the City has already begun to build on its rich heritage of movement. The redesign of the Metrolink Station south of downtown, which also includes a large bus depot, has incorporated Spanish Colonial style shelters. The design guidelines for Foothill Boulevard, part of the historic US Route 66, will evoke automotive themes. The Pacific Electric Inland Empire Trail, currently an abandoned right-of-way which cuts a diagonal swath through the City, is being transformed into a multi-use "rail trail" providing not only recreational opportunities but the potential to incorporate unifying agricultural and transportation design elements into downtown.





ISSUES, GOALS, POLICIES & ACTIONS

Introduction

The organizing principle of this element is that community design exists at various levels, from the scale of an individual project to that of the entire community. In between, districts and neighborhoods become visually distinct sub-areas yet still tied to the City. The challenge for the City of Fontana is to incorporate new development into the design fabric of the City so that it contributes both to overall community image and to its immediate context. The best way to plan for this is to establish design guidelines and policies at each of these important levels. The following structure offers a way of thinking about design features applicable to these distinct levels and provides the basis for the issues, goals, policies and actions that follow.

Community Design Scope and Structure

Community Level Design Features

- ◆ city gateways and entries
- ◆ major corridor design and street furniture
- ◆ city signs and logos
- ◆ community facilities – civic center, parks, trails, community centers
- ◆ view protection, especially along major thoroughfares
- ◆ regional access points and corridors

District Level Design Features

- ◆ shopping and activity centers
- ◆ specialized landscaping and streetscape themes
- ◆ downtown design treatment
- ◆ secondary entry treatments

Neighborhood Level Design Features

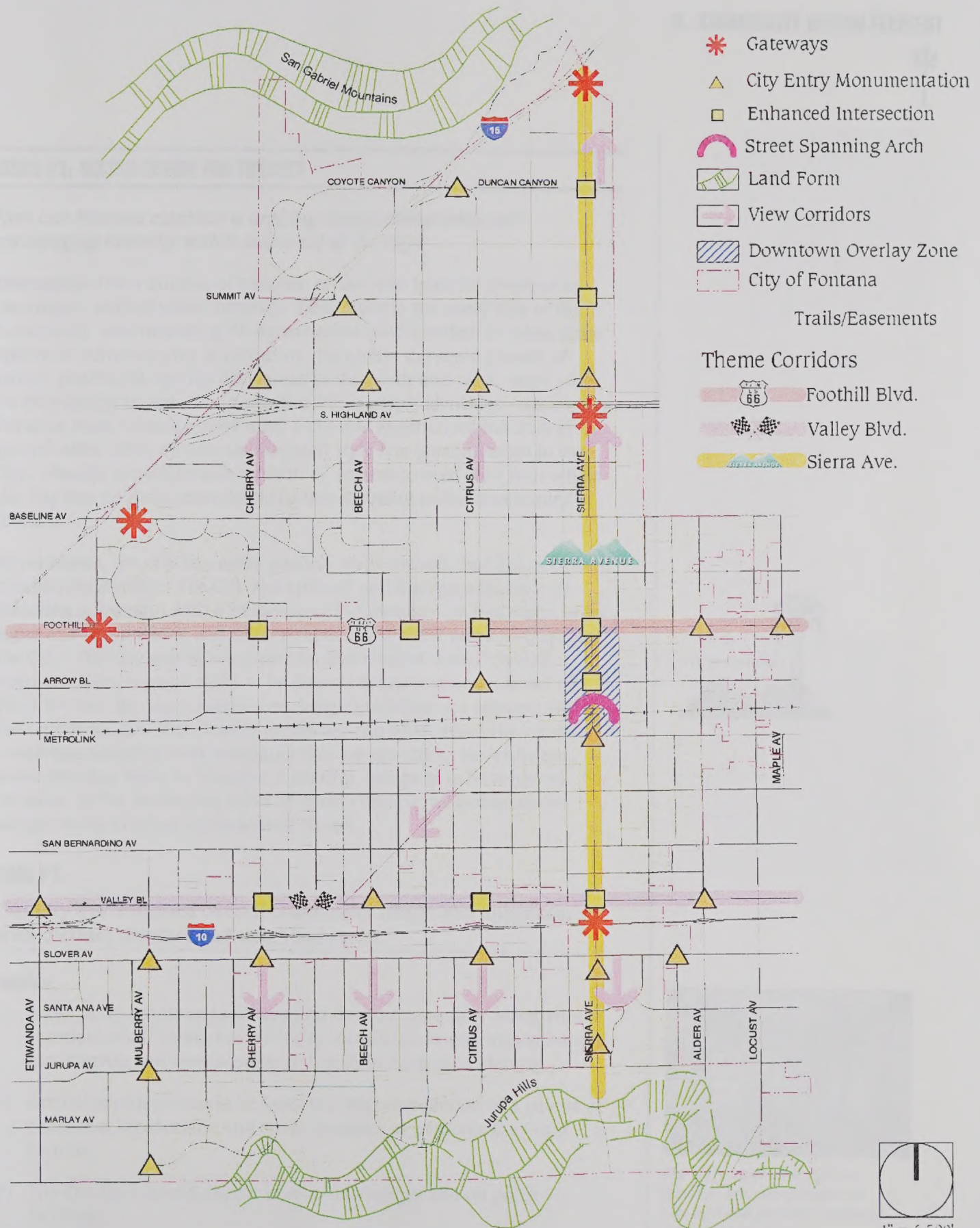
- ◆ retail centers
- ◆ neighborhood entry features
- ◆ neighborhood streetscape and landscape plans
- ◆ elementary schools
- ◆ neighborhood parks

Project Level Design Features

- ◆ architectural variety and interest
- ◆ creative site planning
- ◆ context and compatibility transitions
- ◆ convenient parking and access
- ◆ varied streetscape treatment

See Figure 6-1 for a depiction of significant community-wide design features.

Community-Wide Design Features



1" = 6,500'

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves a thorough analysis of the situation and a clear definition of the problem.

2. Once the problem is identified, the next step is to gather information and data related to the issue. This can be done through research, interviews, and other methods.

3. After gathering information, the next step is to analyze the data and identify the root causes of the problem. This involves a careful examination of the information and a search for patterns and trends.

4. Once the root causes are identified, the next step is to develop a plan of action. This involves determining the steps that need to be taken to address the problem and the resources that will be required.

5. The final step in the process is to implement the plan and monitor the results. This involves putting the plan into action and regularly checking the progress to ensure that the problem is being addressed effectively.

THE IMPORTANCE OF PROBLEM SOLVING

Problem solving is a critical skill that is essential for success in many areas of life. It is the ability to identify a problem, analyze it, and develop a solution that is effective and efficient.

One of the most important reasons why problem solving is so important is that it allows us to overcome challenges and achieve our goals. Without the ability to solve problems, we would be unable to move forward in our lives.

Another reason why problem solving is important is that it helps us to develop critical thinking skills. When we solve problems, we are forced to think carefully about the situation and to consider different options and solutions.

Finally, problem solving is important because it helps us to build resilience. When we face a problem, it is easy to feel discouraged or overwhelmed. However, by solving the problem, we learn that we are capable of overcoming challenges and that we can achieve our goals.

In conclusion, problem solving is a vital skill that is essential for success in many areas of life. It allows us to overcome challenges, develop critical thinking skills, and build resilience. By mastering the art of problem solving, we can achieve our goals and live a more fulfilling life.

There are many different methods for solving problems, and the best method for a particular problem will depend on the nature of the problem and the resources available. However, there are some general principles that can be applied to most problems.

One of the most important principles is to clearly define the problem. Before we can solve a problem, we need to know exactly what the problem is and what we are trying to achieve.

Another important principle is to gather information and data. We need to know as much as possible about the problem and the resources available to us before we can develop a solution.

Finally, it is important to develop a plan of action. Once we have gathered information and identified the root causes of the problem, we need to determine the steps that need to be taken to address the problem.

By following these principles, we can develop a plan of action that is effective and efficient. We can then implement the plan and monitor the results to ensure that the problem is being addressed effectively.

Problem solving is a skill that can be learned and improved upon. By practicing the principles and methods outlined above, we can become more effective problem solvers and achieve our goals more easily.

There are many resources available to help us learn more about problem solving. Books, articles, and online courses can all provide valuable information and guidance. By taking advantage of these resources, we can improve our problem solving skills and achieve our goals more easily.

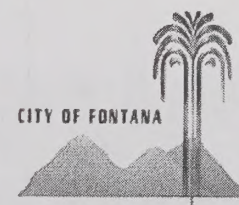


ISSUE #1: DESIGN THEME FOR THE CITY

How can Fontana establish a unifying design theme while still encouraging diversity within sub-areas of the City?

Discussion: For a number of reasons, it has been hard for Fontana to maintain a unified visual identity. First, there is the sheer size of the community, encompassing 36 square miles (and another 15 miles if the sphere of influence area is included). Secondly, the rapid growth of newer, residential specific plan areas in the north and west - each with its own design theme - has given the City multiple identities. Also, since Fontana wasn't incorporated until 1952 and experienced the bulk of its growth after 1960, no one architectural style has predominated in the City. Finally, a considerable amount of unincorporated land over which the City has no jurisdiction lends further diversity to the community's identity.

Nevertheless, the City has made positive steps towards building a distinct community identity. The City has updated and incorporated its logo - featuring a fountain with a backdrop of mountains - on bus stops, entry signs and monuments, and trash receptacles at a few areas throughout the City. The City seal also appears on major street signs. Overall, however, there is much more to be done to create a stronger sense of place for the City. As it establishes design guidelines for selected areas, the City recognizes that flexible guidelines can often avoid the visual monotony resulting from standards that are too strict. Nevertheless, some direction must be followed if positive change is to be achieved. For instance, in the developing areas of north Fontana, a Mediterranean design theme is being implemented overall.



GOAL #1:

Our City has a unified overall community image and appearance with distinct districts and neighborhoods.

Policies:

- 1) Major entry points or gateways into the City, especially along arterial corridors, shall be marked with City identification and with enhanced landscaping and streetscaping to highlight Fontana's identity.
- 2) Arterial corridors should be improved with installation of a palette of consistent landscaping and street furniture to reinforce the City's identity.
- 3) The City logo should appear in all public spaces and on public facilities.



The entry monument sign on Baseline Ave. incorporates the City logo and provides a sense of arrival to motorists



The entry to the clubhouse at Sierra Lakes in north Fontana.



This view of the Jurupa Hills frames the City to the south.

- 4) Development in north Fontana should be designed to incorporate elements consistent with a Mediterranean design theme.

Actions:

- 1) Adopt an entries and corridors landscaping plan, along with improvement standards to strengthen and unify the City's image.
- 2) Adopt a program for the design and installation of special treatments at identified City gateways and monumentation locations.
- 3) Develop a landscape palette, appropriate to the Mediterranean climate of the region, and design treatment plan for City entry points, major boulevards, parks and areas of special interest.
- 4) Continue to implement the City Xeriscape Ordinance.
- 5) Consistently incorporate the City's logo into street furniture, street signs and other signage based on scale, location and materials, taking into account cost of maintenance as well as installation.

ISSUE #2: OPEN SPACE: VIEWS AND USE

How can the City best preserve and incorporate view corridors into its design guidelines?

Discussion: Fontana has the good fortune to be surrounded on the north and south by a significant amount of visible open space in the form of mountains and hills. To the northwest and northeast respectively lie the San Gabriel and San Bernardino Mountains; to the south lie the Jurupa Hills. These views are further enhanced by the fact that the City's street system is almost totally a north/south and east/west grid, enabling largely unobstructed views. Clearly, one of the best ways to enhance the City's identity is to use this natural open space as a defining visual boundary and a view corridor.

The City has long recognized the need to incorporate view corridors in its design guidelines. In 1987, the City commissioned a Scenic Corridor Plan and Design Guidelines Study for the North Fontana area. This study identified six scenic corridor routes and two freeways for special design treatment including:

- ◆ north-south routes: Sierra, Citrus and Cherry Avenues
- ◆ east-west routes: Foothill Blvd., Baseline and Highland Avenues
- ◆ major freeways: I-15 and I-210.

The study recommended the creation of spacious view corridors and incorporation of community design themes, streetscape identity devices and specialized landscape treatment at strategic points along these



routes. Many of these ideas will also be expanded to other areas of Fontana, including the enhanced landscaping and overpass improvements seen along the I-10 Freeway in southern Fontana.

GOAL #2:

We preserve and use our open spaces as recreational amenities, visual boundaries and view corridors.

Policies:

- 1) The design of major community facilities such as the community centers, parks, bikeways and trails will take advantage of the views provided by the adjoining mountains and hills.
- 2) A series of strategic points along the scenic corridors will be created where special community design and landscape treatment is warranted.
- 3) The City's open space network shall be designed to integrate both the built and natural environment.
- 4) Preservation of open space near the periphery of City boundaries provides important visual contrast to the built environment.

Actions:

- 1) Recognize and enhance view corridors in the design guidelines for Sierra Avenue and Foothill Boulevard.
- 2) Create an attractive scenic environment along existing freeways by continuing the program of landscape improvements along I-10 near the Sierra Avenue off-ramp.
- 3) Adopt design guidelines for the review of projects along the I-10 and I-210 corridors.
- 4) Address view corridors and access to open space in the Parks, Trails, and Recreation Master Plan

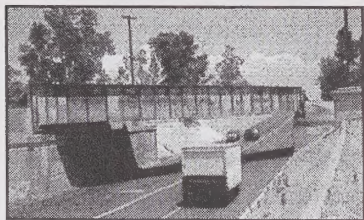
ISSUE #3: ENHANCED ARTERIAL CORRIDORS

How can the appearance of major arterials that cross Fontana be improved?

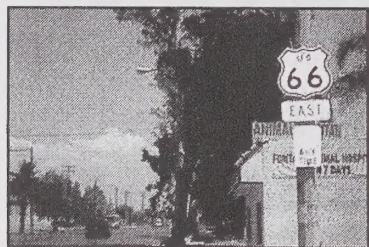
Discussion: Since Fontana is at the crossroads of major freeways and arterials, the community's image is often experienced from an automobile. The City has initiated a streetscape improvement program for its major arterials, consisting of design guidelines for Foothill, Sierra and Valley Boulevards.



Enhanced freeway corridor landscaping improves the view into the City from Interstate 10.



The railroad overcrossing of the abandoned Pacific Electric and Southern Pacific Railroad provides an excellent opportunity to incorporate transportation design themes and an important entry statement along historic Route 66 (Foothill Blvd.)



Foothill Boulevard, part of historic Route 66, can incorporate automotive design themes and symbols in its streetscape improvement plan.

Sierra Avenue, the major north/south corridor, provides additional entry statement possibilities and runs the full length of the City, including directly through downtown. Foothill Boulevard provides a strong east/west connection with neighboring cities and will receive special design treatment as part of its Route 66 heritage. Valley Boulevard has a strong connection to Fontana's industrial areas and trucking industry as well as the California Speedway.

GOAL #3:

The major arterial thoroughfares of the City contribute to the overall image and diverse character of the community.

Policies:

- 1) Major arterial highways shall be improved according to customized design guidance within and adjacent to public rights-of-way.
- 2) Commercial and industrial uses adjacent to or within designated corridors shall be developed and revitalized to reflect contemporary design standards as defined in this Plan.
- 3) Continue to pay special attention to designs that include screening, berms, fencing and landscaping for industrial uses, especially regarding outside storage and handling areas.

Actions:

- 1) Adopt arterial streetscape improvement plans as part of the City's Capital Improvement Program and Capital Re-Investment Program.
- 2) Work with the Caltrans for Transportation Enhancement Activities funding from TEA-21 (Transportation Equity Act, 1998).
- 3) Adopt design guidelines for Foothill Boulevard, Valley Boulevard and Sierra Avenue that incorporate the unique qualities of each thoroughfare.
- 4) Initiate a program to provide landscaping, where feasible, to existing paved street medians.

ISSUE #4: DOWNTOWN REVITALIZATION

What type of downtown revitalization would best serve the residents of Fontana?

Discussion: From an urban design perspective, Fontana's downtown lacks unifying design features but contains a number of strong opportunities for improvement. Although the downtown lacks enough historic buildings to warrant historic district designation, the downtown



has a number of notable older buildings, a Civic Center undergoing redevelopment and new senior housing. The City is currently adopting a Downtown Revitalization Strategy in an effort to draw more residents and visitors to the area.

GOAL #4.1:

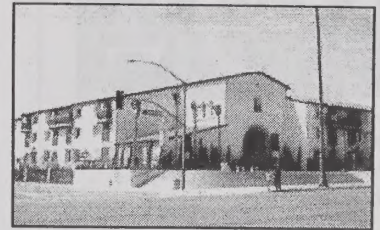
We have a vibrant, identifiable downtown that serves the diverse needs of its residents and readily attracts visitors.

Policies:

- 1) Design guidelines for the downtown area that incorporate consistent community symbols and distinct design features shall mark it as an area of special importance in the community.
- 2) Key features of the Civic Center design guidance should also be reflected in other public facilities throughout the City.
- 3) Existing and proposed landmarks within the downtown area should be featured in design concepts and improvement plans.
- 4) To the extent practical, downtown architecture should reflect a "Main Street", small town character that is readily visible to passing traffic and comfortably accessible to pedestrians.
- 5) In the downtown area and near major public facilities, the preferred architectural styles include "Main Street" Commercial, Spanish Colonial/Mediterranean, Art Deco, Craftsman Bungalow and Streamline Moderne.

Actions:

- 1) Prepare and adopt a set of downtown design standards that are economical and maintainable for the Downtown Fontana Overlay District.
- 2) Identify design features that can be applied outside of the downtown to help build a sense of community belonging.
- 3) Establish and maintain a downtown landmarks inventory to be updated on a regular and practical basis.
- 4) Define and describe how the "Main Street" concept will be reflected in the architectural styles to be used as a basis for downtown revitalization.



The Sierra Village senior housing project in Downtown Fontana sets a good example for future projects in terms of its quality of design and detailing.



The art deco Fontana Theatre on Sierra Avenue is one of downtown's most distinctive historic buildings.

GOAL #4.2:

Our revitalized downtown incorporates a new Civic Center Campus, existing notable architecture, enhanced pedestrian amenities and cultural centers.

Policies:

- 1) Significant architecture and cultural features of our downtown area should be preserved and rehabilitated.
- 2) Development proposals shall be reviewed for compliance with the Civic Center Campus plan and the adopted downtown design guidelines.
- 3) Links to Fontana's historic and agricultural past should be a theme along the Pacific Electric Inland Empire Trail and at other key points in the downtown area.
- 4) Achievement of this goal shall be accomplished by a combination of incentives, guidelines and regulations.
- 5) Historic themes and elements – such as displays, murals, plaques and other artifacts – should be adapted where appropriate in public gathering places.

Actions:

- 1) Update and maintain the existing inventory and survey of historic structures within the downtown area.
- 2) Reconstruct and rehabilitate the Fontana Station of the Pacific Electric Railroad in downtown for adaptive reuse.
- 3) Adopt a system of incentives for the rehabilitation and/or adaptive reuse of locally designated historic architecture in downtown Fontana.
- 4) Develop design templates and descriptions for historic themes in the displays, artwork and other artifacts to be used in communicating them.
- 5) Prepare and implement a customized project review process that clearly describes the mix of incentives, guidelines and regulations to be applied for downtown projects.
- 6) Update portions of the Zoning Ordinance to reflect downtown revitalization policies, with special emphasis on incentives to be used.
- 7) Adopt an art in public places ordinance.



ISSUE #5: GUIDING NEW DEVELOPMENT

How can Fontana insure that new development will contribute to the overall image of the City while at the same time incorporating high quality, site-specific design features?

Discussion: As the City grows to the north, revitalizes its core and eventually incorporates sphere of influence areas to the west, clear and specific design guidelines become more important than ever. The City currently has design review guidelines, but it seeks to strengthen them to attain an even higher level of project quality. The largely vacant areas in northern Fontana represent an excellent opportunity to provide design guidance relating to mixed-use activity centers, building orientation to wind and sun, and links between residential and commercial areas. In addition, the City wants to establish design guidelines for both shopping centers and residential neighborhoods that provide more attention to pedestrian amenities and link neighborhoods with shopping and community facilities.

With regard to architectural design, the City encourages a diversity of styles that provide visual interest instead of artificially imposing one overall theme. Although unifying themes for neighborhoods are desirable, variation in architectural style, orientation and detailing of individual product types within development projects should be achieved.

GOAL #5.1:

Existing and new development reflects extensive use of high-quality, contemporary design, incorporating unifying, community-wide design elements.

Policies:

- 1) Citywide landscape standards shall continue to be applied in new and revitalized development throughout the City.
- 2) New development should be linked to community facilities such as trails, parks, community centers and schools.
- 3) View fencing and distinctively articulated masonry walls are preferred to long stretches of block walls adjoining residential areas.

Actions:

- 1) Continue to administer Citywide design guidelines and standards for landscaping, signage, and boundary walls.
- 2) Negotiate agreements with school districts to facilitate coordination of trail, parks and school facilities as new areas develop.



An example of an attractive, articulated wall design.

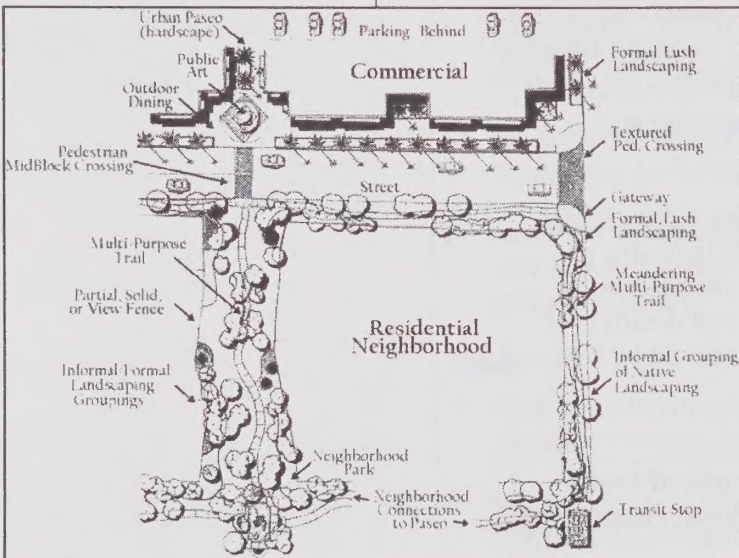


GOAL #5.2:

Neighborhood organization and design reflect diverse and high quality development standards, strong integration into the broader community, and energy-efficient environmental siting standards.

Policies:

- 1) Schools and parks should be conveniently located within new residential communities.
- 2) Higher density residential uses should be located near retail and activity centers.
- 3) A well-integrated network of bike and pedestrian paths should connect residential areas to schools, parks, and shopping centers
- 4) Distinct neighborhood identities should be achieved by continuing to apply streetscape and landscape design, entry treatments, and architectural detailing standards.
- 5) In large-scale residential developments, diversity of floor plans, garage orientation, setbacks, styles, building materials, color and rooflines shall be preferred over more uniform design patterns.
- 6) Varied front setback requirements and garage orientation as well as shared parking arrangements shall be encouraged.



A conceptual layout of a residential neighborhood with a distinct character and connected into the fabric of the community.

- 7) Environmentally sensitive and energy-efficient building siting standards, which minimize impacts from wind, provide shade, reduce stormwater-runoff and maximize opportunities for passive solar design, should be incorporated into design guidelines for large-scale projects.
- 8) A range of housing densities and product types shall be encouraged in residential developments where feasible.

Actions:

- 1) Continue to administer the City's design guidelines for all new residential developments.
- 2) Develop environmental and energy-efficient design guidelines for new residential construction.

**GOAL #5.3:**

Activity centers, including shopping centers, contain a high level of pedestrian amenities, distinct and varied architectural details, and careful integration into surrounding residential areas.

Policies:

- 1) Development within new mixed-use land use designations shall reflect creative site planning, vertical or horizontal combinations of uses, convenient access and clear signage.
- 2) Newly developed shopping and activity centers shall be linked to surrounding residential uses through convenient bicycle and pedestrian paths.
- 3) Provision of people-gathering places and amenities – such as mini-plazas, courtyards, benches, movable seating, shade, trash receptacles, and water fountains – should be encouraged in new development and revitalization projects.
- 4) Buildings in activity centers shall be oriented toward major thoroughfares, sidewalks and public spaces with convenient but not visually dominating parking on site.
- 5) Architectural interest and variety shall be maintained through varied rooflines and detailed façade treatments.
- 6) The size and design of signs shall be related to the scale of the building or development and its relation to the street.
- 7) Parking areas shall continue to be buffered from the street and provide, where practical, a pedestrian spine for safe access to shopping and activity areas.

Actions:

- 1) Adopt and publish design guidelines for all new and revitalized retail activity centers, including standards for parking, signage, pedestrian amenities, and mixed-use.
- 2) Amend the Zoning Code to facilitate the mixed-use, pedestrian-oriented quality of the activity centers.



Attractive design, human scale and movable seating enhance the livability of places.



ISSUE #6: LAND USE COMPATIBILITY

How can the City reduce land use conflicts that result at the interface of residential, commercial and industrial zones?

Discussion: Because Fontana has long been a transportation and industrial node, it follows that conflicts occur where different uses meet. This is particularly important in south central and west Fontana where business parks, light industrial and storage facilities adjoin residential or commercial areas.

Existing City zoning code for commercial and industrial zones requires measures to address compatibility with adjacent uses. To reduce conflicts with adjoining residential areas, the code calls for open space buffers, landscape screening, berming, walls and proper building orientation. Adopted City design guidelines also require compatibility with adjacent residential zones with attention to building profile to minimize visual impacts.

GOAL #6:

Conflict and spillover effects at the interface of differing land uses are minimized with appropriate design standards.

Policies:

- 1) Specialized design standards and regulations shall be applied to those areas where conflicting land uses meet.
- 2) The Zoning Ordinance shall incorporate provisions for keeping land use conflicts to a minimum.
- 3) One or more techniques for reducing land use conflicts may be applied in any particular situation.
- 4) Maintain a strong program of code enforcement to address land use conflicts.

Actions:

- 1) Continue to implement design standards and regulations to minimize land use spillover effects at the interface of different land uses.
- 2) Prepare a list of standard conditions for application to projects in which conflicting land uses are an issue.



An enhanced sound wall can effectively and aesthetically buffer uses from one another.



Bermed landscaping along Baseline Ave. serves to soften the view of adjoining uses and beautify the streetscape



- 3) Continue to administer separate development and design standards at the interface of residential/industrial, commercial/industrial and residential/commercial uses.
- 4) Review code enforcement practices to determine if land use conflicts can be mitigated where uses are already established.



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Chapter 7

Economic Development Element





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Chapter 7. Economic Development Element

INTRODUCTION

A City on the Move

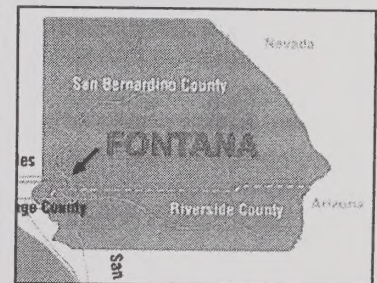
Fontana is the fastest growing community in the Inland Empire. Positioned at the crossroad of major interstate freeways and served by east/west rail lines, the City is a hub of multi-modal transportation and a gateway to one of the most dynamic areas in the United States. Employment within Fontana's primary and secondary markets total more than three million people. With a large amount of undeveloped land and commercial/industrial areas in transition, the City is still in a position to carefully guide its economic future. Located within the fast-growing Inland Empire, Fontana needs to determine its role in the region and implement a strategic plan to meet its goals.

About This Element

Although not a required element by state law, the City decided long ago that sound economic planning is an integral part of the General Plan. With the goal of creating an on-going Economic Strategic Development Plan, this element creates the policy framework for sound economic growth as well as development strategies that enhance the City's fiscal health. Because economic decisions shape the future, this part of the General Plan is intricately related to the Land Use, Housing and Circulation Elements.

VISIONS FOR A BALANCED COMMUNITY

From its start as an agricultural community, through its evolution to a steel town, to its current role as a diverse center for residential and



Fontana's strategic location has been called the "Crossroads of the Inland Empire"



employment uses, Fontana has maintained its key goal of fostering a healthy and innovative economy. This focus tracks closely with the vision and values of Fontana's residents, elicited in the community visioning process conducted as part of this General Plan update. Specifically, the community process resulted in the formulation of a vision for Fontana, thereby setting the goals of this Element:

- ◆ A vibrant community with a balance of residential, commercial and industrial uses;
- ◆ A diversified industrial base, reflecting new trends and opportunities of the modern economy;
- ◆ Use of the City's advantageous setting as a transportation hub for the Inland Empire;
- ◆ A revitalized Central Business District which anchors an attractive and active downtown area;
- ◆ Enhanced arterial corridors which create an attractive setting for business development and expansion;
- ◆ Expanded shopping and entertainment destinations providing opportunities and convenience for the residents of Fontana; and
- ◆ Continued use of the redevelopment process as a tool for revitalizing commercial and industrial areas of the City.

COMPONENTS OF THE CITY'S ECONOMIC DEVELOPMENT ACTIVITIES

Common Strategies – How do Cities Enhance Their Economies?

A number of specific economic development programs and strategies are commonly implemented by cities:

- ◆ **Redevelopment** – The process of rebuilding blighted or distressed areas of a city. Typically, a city is able to designate a redevelopment project area by making findings of blight, in compliance with state law, and then promote its improvement or acquire the property using eminent domain. As redeveloped property increases in assessed value, the City's Redevelopment Agency receives the increase, or tax increment, and may use the proceeds toward further redevelopment or the provision of affordable housing for low or moderate-income households. The City of Fontana has an active redevelopment program focusing on five project areas: downtown Fontana, North Fontana, Jurupa Hills, Southwest Industrial Park, and the Sierra Corridor.



- ◆ **Jobs/Housing Balance** – A balanced ratio of jobs to housing units means that a community provides employment for its residents and minimizes in or out-commuting. A ratio of 1:1 would indicate a jobs/housing balance. While a ratio greater than 1 indicates a net surplus of jobs, a number less than 1 would result in an outflow of workers to jobs elsewhere. An imbalance of jobs and housing is believed to be a major cause of traffic congestion and housing affordability problems near major employment centers. Further, state law requires that each community address the provision of affordable housing to meet its share of the Regional Housing Needs Assessment.
- ◆ **Fiscal analysis** – Where does the money come from? – To pay for the services they provide, all cities rely on a steady stream of revenue. In California, the two major sources of revenue for local cities are sales taxes and vehicle license fees, both of which are shared with the state government. From this perspective, commercial development is advantageous because it generates sales tax revenues without imposing a significant demand for city services. Charts 7-1 and 7-2 depict the distribution of City's new development costs and revenues in the year 2003.
- ◆ **Municipal Budgets: What services do cities provide?** – In addition to providing basic law enforcement, fire, parks, and community development services, cities must also perform maintenance of infrastructure such as roads, sewers, community buildings and landscaping. In order to provide these services, Fontana, as well as other cities, may adopt a Capital Improvement Plan (CIP) that identifies projects to be completed and the funding sources to be used. In Fontana's case, the CIP is a seven-year plan. The City of Fontana's CIP has financed many physical improvements within the City.
- ◆ **Economic Development Strategy** – Fontana has an active economic development program coordinated by the Department of Housing and Business Development and the Economic Development Center. Furthermore, although not required to do so, the City has found it advantageous to devise and implement its own Economic Development Strategy.

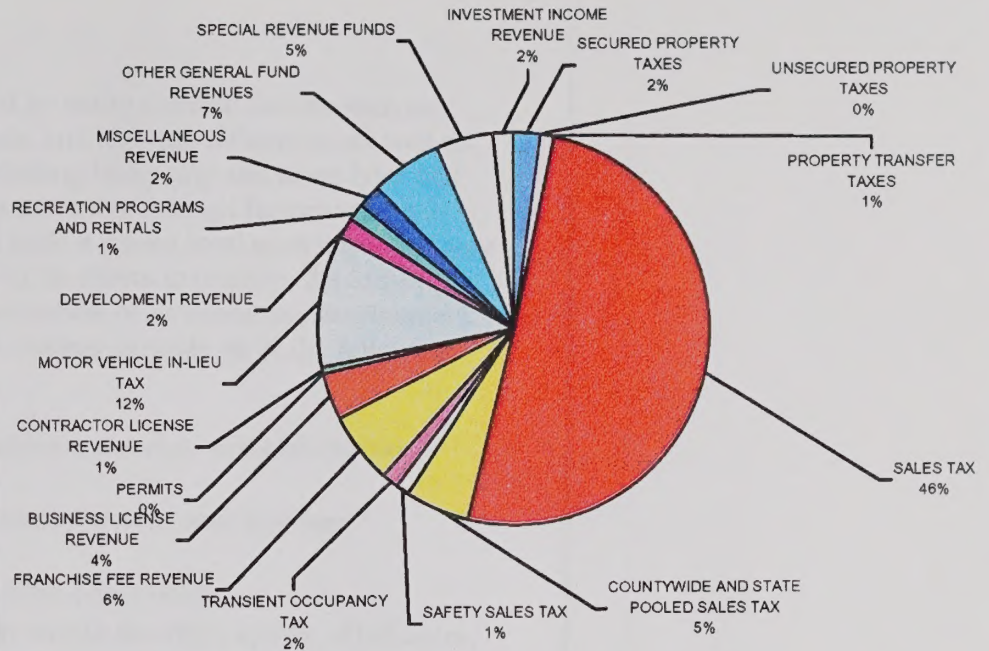


Chart 7-1 City of Fontana New Development Revenues, 2003

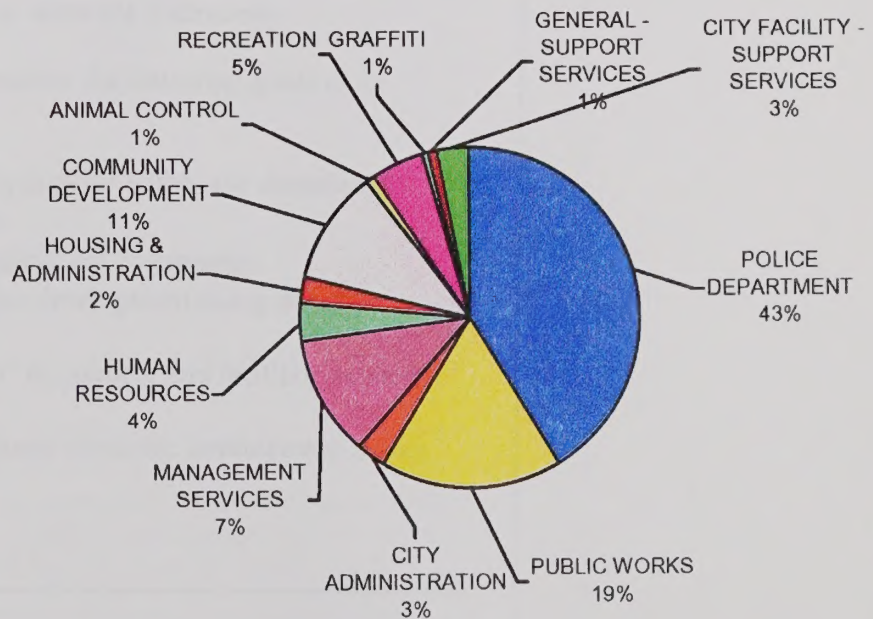


Chart 7-2 City of Fontana New Development Costs, 2003



Taking the Initiative

Fontana's economy is influenced by many external factors such as interest rates, employment trends, and regional influences, as well as state and federal influences, including budgeting and new laws and regulations. Nevertheless, there are many internal factors within Fontana's control that can help build a strong local economy. One way the City of Fontana is proactive in its efforts to improve the local economy is through the implementation of its Economic Development Strategy. The City of Fontana's strategy is made up of the following components:

- Integrating Planning, Business Development and Capital Spending;
- Focusing efforts on business retention and business development/attraction;
- Maintaining a safe and clean community;
- Annexing areas presently within the City's sphere of influence;
- Focusing on inside/out investment within the community – from the developed central core of the City outward to the developing areas in the north and south;
- Networking at other levels of government, including county, state and federal, in order to secure funding for Fontana; and
- Investing in infrastructure to serve the community.

The City is aligning its energies to realize the following goals of its Economic Development Strategy:

- Facilitate in-fill development projects within the community;
- Enhance the City's tax base;
- Promote job creation throughout the community;
- Plan and encourage economic development along the City's major transportation corridors;
- Operate as an "ombudsman" to promote and facilitate economic development; and
- Take a proactive role in regional economic development issues.

EXISTING CONDITIONS

Fontana's Economic Context

- ◆ **Location** – Located in the growing western portion of the dynamic Inland Empire, and with access to and from Interstates 10, 60, and 15 and SR 210, as well as the region's rail transportation system, the



City of Fontana is in a strong position to capitalize on its visibility and opportunities for growth. The projected increase of goods movement of products coming through the Ports of Los Angeles and Long Beach will maintain the Southern California region as the primary import/export gateway to the United States. With the completion of the Alameda Transportation Corridor for truck and rail traffic, the connection to and from the Ports of Los Angeles and Long Beach and the region is greatly improved. However, limited land availability, traffic congestion and high land prices in the South Bay region of Los Angeles has pushed a significant amount of new industrial development to the Inland Empire.

- ◆ **Demographics** – Fontana is a young, rapidly-growing and ethnically diverse community. Its largest ethnic group is Hispanic/Latino (58% of population). The City's population as a whole is younger – with its 2000 Census median age of 26.2 – than even San Bernardino County, the youngest county in southern California. Its households are fairly large – 3.85 people per household – compared to the regional figure of 3.12. Its median income per family - \$45,782 according to the 2000 US Census – is higher than the county's figure of \$42,066.
- ◆ **Labor Market** – From 1991 to 2000, the City of Fontana experienced rapid growth in employment, with a 68.2% increase in the City's employed labor force, or 24,593 employed persons from 16,784 in 1991, according to the California Department of Finance, as compiled by John E. Husing, Ph.D. of Economics & Politics, Inc. This was due in part to a dramatic job rate growth of 140.4% within the Distribution and Transportation sector. In the same time period, the number and size of firms in the City increased, with a 19.1% increase in the number of firms and an increase of about 9 workers per firm. California Department of Finance research also indicates that sectors employing high percentages of Fontana residents were also the sectors experiencing job growth during this time period.

In 1999 and 2000, the City of Fontana's job growth rates, 13.9% and 8.5% respectively, exceeded that of the Inland Empire region, with rates of 6.2% and 5.4%, respectively. The California Department of Finance attributes the growth in the City's employment to the migration of businesses from Southern California's coastal communities to inland communities, due to lower land prices in the Inland Empire and the availability of vacant land in Fontana.

- ◆ **Real Estate Market** – In the 1990s Fontana experienced record sales of new and existing homes and rising home prices within the City, according to the California Department of Finance, as compiled by John E. Husing, Ph.D. of Economics & Politics, Inc. From 1991 to 2000, Fontana's housing stock grew by 6,525 units, or 22.2%.



During this period, new and existing home markets followed a similar path, with home prices peaking in 1990, prices declining from 1991 to 1995, and record sales in 1999 and 2000. By 2000, new and existing home sales reached 2,796 and 1,111 units, both the second highest ever in their respective categories. By the first quarter of 2001, median new and existing home prices reached record highs.

California Department of Finance research indicates strong growth in the single-family housing market, as shown in the ratio of home sales to the City's existing single-family homes, where Fontana's home sales in 2001 equaled 13.9% of its housing stock.

The Economic/Market Analysis for the City of Fontana prepared by Realty Research Associates in 2002 indicated the following regarding the retail and industrial sectors in Fontana:

◆ Retail Trends –

- The retail demand in Fontana continues to be for community centers, power centers anchored by a warehouse store and neighborhood centers servicing the local population.
- A demand forecast for retail services in the area indicates that an additional regional mall is supportable. However, with the proposed 175-acre Victoria Gardens Regional Center in the planning process in neighboring Rancho Cucamonga, this project will meet the additional demand generated by new household growth over the forecast period. If for some reason this project is not developed, there will be demand support for an alternative regional center in the Ontario, Rancho Cucamonga, and Fontana trade area.
- Neighborhood shopping centers, where most convenience goods are purchased will be located throughout the City based on residential development patterns. Data from the public survey conducted as part of this General Plan update indicates that nearly 60% of Fontana residents travel less than 5 minutes to a neighborhood shopping center. For shopping goods, nearly 78% of the Fontana residents visit a club/warehouse store and have an average expenditure of \$136 per visit.
- Convenience store sales, such as food, have grown from 1990 at a rate similar to the growth in population. This is consistent with the local trade area of most supermarkets anchoring neighborhood centers.
- General merchandise sales, which are a major store category, have experienced a slower than average growth rate. The major general merchandise sales now occur in discount stores such as Wal-Mart, Target or K-mart or in discount warehouse stores such as Costco and Sam's Club. Neighboring cities have drawn off the



general merchandise sales share as they have added discount stores to their community centers.

- The specialty store category has also lagged as new stores have located in or near community sized centers rather than neighborhood centers.
- The building material/home improvement category suffered a decline with the close or relocation of home improvement centers. The home improvement centers typically are stand-alone or located adjacent to community-sized centers. The single-family suburban nature of the City of Fontana would provide the support for a home improvement center.
- Eating and drinking establishments have done well. The sales per square foot generated by fast food outlets are often a motivation for adding outlets to retail centers. From the resident's survey the trend toward eating away from home is evident. The average household in Fontana indicated they spend \$41 per week for food away from home verses an average weekly grocery expenditure of \$103 per week.
- The automotive category is one that has grown significantly for the City of Fontana. Auto malls, with access and visibility from a freeway corridor provide for a high sales volume and corresponding high sales tax revenue. As automobiles are a major retail item that has a sales tax, the amount of land associated with an auto mall makes them a prime candidate to increase sales tax revenue for the host municipality.

◆ Industrial Trends –

- The major demand in the industrial sector will be for warehouse distribution space, with some manufacturing uses. Industrial uses such as warehouse and distribution that depend as accessible regional transportation corridors will be the most likely industrial users in Fontana. The freeway network and rail service in Fontana provides for access throughout the region.
- The core of the Inland Empire: Ontario, Rancho Cucamonga, Fontana and Mira Loma, have become the "inland port" for goods distribution throughout the western United States. This trend will continue.
- The development of an industrial base will provide the City with an asset base for the long-term economic health of the City. The most economically beneficial firms are those which are "point of sale" locations adding the benefit of sales tax revenue, plus the property tax revenue to the City.



Development Outlook –Future Opportunities

With a large proportion of undeveloped land, especially in the north, and a population expected to reach over 150,000 by 2005, housing, commercial and industrial development need to be balanced to maintain the fiscal health of the City. There are also major opportunities for in-fill development within the City, and within the City's sphere of influence to the west of the City's existing core developed area.

A Fiscal Impact Analysis completed by Taussig & Associates as part of this General Plan update addressed existing and new development within the incorporated boundaries of the City. The fiscal impacts of development within the City's sphere of influence will be studied in a separate analysis at the time annexation occurs.

In terms of revenue relating to Existing Development within the City, the fiscal impact analysis report calls attention to the projected elimination of the Utility Users Tax in the City in 2004. With this loss of revenue, funds available for the City to invest, and to receive interest revenue on, will decrease as well. These projected losses, coupled with increasing costs for park maintenance services and recreation services, are projected to result in a deficit of over \$8 million per year for existing City development. A \$6 million per year deficit is projected on new development within the City limits due to increases in the levels of service (and associated spending) for police services, parks and recreation, coupled with the projected loss of the Utility User's Tax. The complete text of the Fiscal Impact Report can be found in Appendix J to the General Plan.

Revitalization and Change

The success of the City's economic future depends on how it addresses older areas in transition as well as new development areas. Revitalizing the City's core area, and the boulevards which serve it, as well as attracting a healthy mix of residential, commercial and industrial/business park uses for the City's vacant areas, will be the engine of economic change. Continuing to use the redevelopment process to promote economic development will provide the benefits of increased tax-increment that can be used to finance City improvements.

Fontana has an active program of economic development and business attraction. The Department of Housing and Business Development maintains an Economic Development Center that provides assistance on site selection, housing programs, business licenses and job training. A City-sponsored website – www.fontanabusiness.org - is available for information on business development. Partnerships with the private



sector are important as well, and the City has a long-established relationship with the Fontana Chamber of Commerce.

The City is also actively reshaping its public facilities and updating its infrastructure. A new Civic Center Campus, incorporating a new, state-of-the-art library and extensive public spaces, is planned. The Fontana leg of the Pacific Electric Empire Trail will be constructed through downtown and the Civic Center. Three major senior housing complexes are planned at the southern entry to downtown (the first of the three opened in 2003), adjacent to the Metrolink Station. The City's Redevelopment Agency is actively working to revitalize five project areas throughout the City. Major interchange upgrade projects are planned and being implemented along Interstate 10. The State's highway agency Caltrans is expected to bring other freeway improvements to the region to respond to increasing cargo and container traffic as well. The Alameda Corridor East will no doubt bring improvements to the City's interface with the rail system that traverses it east-to-west.

ISSUES, GOALS, POLICIES & ACTIONS

ISSUE #1: BALANCED LAND USES A DIVERSE ECONOMIC BASE

How can the City ensure a fiscally healthy balance of residential, commercial and industrial land uses?

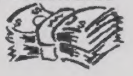
Discussion: Sales taxes are a major source of revenue for the City. Since the closing of Kaiser Steel in 1983, seven industrial parks have been added to the City, as well as a major regional health center, numerous auto and trucking centers, point of sale warehouse/distribution, and a variety of other businesses. Residential development has grown tremendously in that period, particularly within the northwestern part of the City. The challenge for Fontana is to continue to create a socially and fiscally healthy balance of land uses.

GOAL #1

A sustainable balance of residential, commercial and industrial uses supports our City's economy.

Policies:

- 1) The City's pattern of development should balance revenue-consuming uses with revenue-generating uses.
- 2) Land uses should be sought that can adapt to emerging market and fiscal conditions throughout the plan time horizon.



- 3) The City should achieve a mix of land uses that capitalizes on transportation corridors, stimulates employment, offers a variety of housing types/lifestyle choices and can respond to market opportunities.
- 4) The fiscal impacts of new development shall be monitored and appropriate project mitigation strategies shall be imposed.

Actions:

- 1) Require a fiscal impact report on all projects for which the preparation of an EIR is required.
- 2) Establish criteria and procedures for reviewing the fiscal affect of zone changes, as well as new specific plans and site development plans.
- 3) Develop and monitor an equitable impact fee program that ensures that one-time public improvement costs, including all related off-site improvements, are fully covered by the developer.

ISSUE #2: A DIVERSIFIED INDUSTRIAL BASE

How can we build, improve and diversify the industrial base within our City?

Discussion: Traditionally, Fontana's employment has been generated by major industrial sectors including steel manufacturing, trucking, distribution and automotive industries. In order to maintain the City's economic base, the City must sustain and expand its economic development program as necessary to identify and respond to market shifts and development opportunities. To achieve this, collaboration with the private sector and with economic development associations is essential. Also, careful attention must be paid to the quality of industrial development so that business investments are protected over time. Larger scale master plans or specific plans are an excellent means of achieving the desired quality where land parcels are large enough or where multiple properties can be covered by a single plan. Quality development can only be achieved through time by persistent insistence on high standards and attentive code enforcement.

The distribution industry will continue to be important in this market area but should not be allowed to dominate the industrial base, as they are large consumers of land and highway capacity and are low direct generators of jobs. This can be offset through the clustering of interdependent industries (for example, a machinery assembly operation that benefits from a nearby parts supplier).



GOAL #2:

Fontana's industrial/manufacturing employment base is expanding and diversified.

Policies:

- 1) Balanced industrial development should be promoted that reflects a mix of manufacturing, research and development, storage and distribution, and office support.
- 2) The City should seek clusters of industries that reinforce each other and offer a diversity that can better withstand the negative effects of economic cycles.
- 3) More diversified and employee-rich businesses should be sought in the City to augment its already established presence as a major transportation and distribution hub.
- 4) The City shall use its redevelopment powers as a key means of targeting and attracting desirable industries.
- 5) Close collaboration shall be sustained with the Chamber of Commerce and other economic development associations that promote industrial development in this and nearby communities.

Actions:

- 1) Establish, maintain and implement a list of targeted industries for location/relocation in Fontana.
- 2) Join with the Cities of Colton, Rialto, Ontario and San Bernardino to devise ways in which the City and its neighbors can benefit from the Alameda Corridor East, including planning appropriate rail connections to the Jurupa Industrial Park.
- 3) Identify and seek Public Utilities Commission priority for grade crossing improvements within Fontana.
- 4) Continue and expand the Infill Development Incentive program to include targeted sites within key opportunity areas.

ISSUE #3: REVITALIZED DOWNTOWN

How can we most successfully revitalize Fontana's downtown?

Discussion: A revitalized, thriving downtown is a pillar of the new vision for the City, developed as part of this General Plan update. In order to achieve this vision, the City's must continue its commitment to the downtown. In April 2000, a Downtown Revitalization Task Force was



formed with the objective of guiding the transformation of the downtown into “a place that meets the needs of the community, encourages business growth and retention, and provides a clean, safe and pleasant environment for all to enjoy”.

Surveys of merchants and residents highlighted benefits and problems with the current downtown. The results indicated that the downtown may not be realizing its shopping, residential, or entertainment potential, but also indicated its prime location and good flow of traffic as benefits. Residents were also asked what would motivate them to visit the downtown area. The most common responses were as follows:

- Greater variety and quality of shopping opportunities;
- Cleaner and safer environment;
- More attractive area with a coherent design theme;
- More entertainment uses such as restaurants and community functions;
- More convenient parking and traffic flow; and
- An improved pedestrian environment.

A key component of downtown revitalization is the new Civic Center Conceptual Master Plan completed in February 2000. The plan includes a new library, a new public plaza with fountains, improved parking, as well as landscape and hardscape improvements.

GOAL #3:

Our downtown promotes civic pride and provides ample opportunities for shopping, entertainment, recreation and community events, as well as “close-in” residential development.

Policies:

- 1) Current efforts to achieve downtown revitalization shall continue and be expanded.
- 2) The main device for achieving the vision for the city's downtown shall be a Downtown Strategic Plan, which implements the General Plan and provides the basis for coordinating public and private improvement actions.
- 3) Mixed and multiple use projects shall be sought in the downtown area to stimulate vitality in this key portion of the City.
- 4) Downtown successes should be a central ingredient in the City's marketing outreach to potential businesses and investors.

**Actions:**

- 1) Adopt and implement a Downtown Revitalization Strategic Plan including a phasing, funding and evaluation timetable.
- 2) Establish an annual program for reviewing and updating the Downtown Revitalization Strategic Plan in preparation for each upcoming budget cycle so that it remains a living, contemporary guide that benefits from timely allocation of City resources.
- 3) In conjunction with the Downtown Revitalization Strategic Plan, conduct a focused survey of downtown businesses to determine how action priorities are working and possible modifications needed to stimulate desired change.
- 4) Set up a business assistance program to help interested downtown businesses make improvements in building appearance, market responsiveness or merchandising practices.

ISSUE #4: EDUCATION, JOB TRAINING AND PLACEMENT

How can our City best strengthen its workforce through education, job training and job placement?

Discussion: Residents, businesses and city officials have consistently identified education as a key component in maintaining a strong local economy. The availability of a full range of educational programs including K-12 education, adult education, vocational/technical programs, retraining, and job placement insures a more flexible and skilled workforce. The City has recently attracted the Chaffey College (Ralph Lewis) Fontana Center to the downtown area, located at 16855 Merrill Avenue— a resource that can be utilized to benefit the city's future. In addition, on an ongoing basis, Fontana's Economic Development Center provides information to prospective businesses as well as referrals for training, recruitment, and job opportunities.

GOAL #4

Our City, independently and in collaboration with school and community college districts, provides a comprehensive education, training and job placement program to develop and maintain a competitive workforce.

Policies

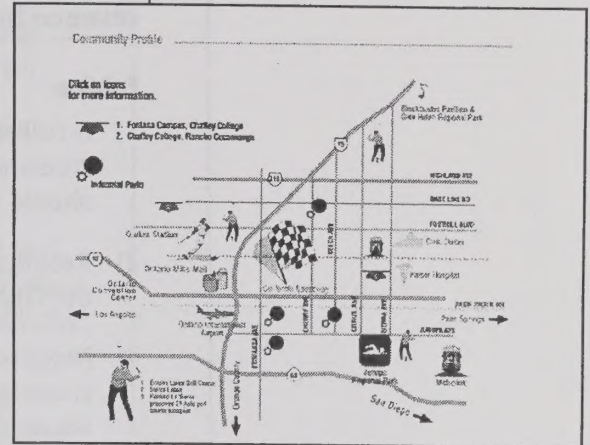
- 1) The City shall continue to support the job training and placement division within the Economic Development Center.



- 2) The City shall support career education programs in public schools such as career academies, internships, Career Speaker Programs, job shadowing, Career Day, and the Regional Occupation Program.
- 3) Opportunities to bring universities, community colleges and specialized technical training branch facilities into the community shall continue to be promoted.

Actions:

- 1) Establish an education and training consortium among the City, local school and community college districts, and local employers.
- 2) Continue the City's outreach to educational institutions seeking to establish branch locations in Fontana.
- 3) Utilize the City profile developed by the Economic Development Center to promote educational branch locations.



A community profile promoting Fontana's resources is already in place on the City's Internet site.

ISSUE #5: EXPANDED COMMERCIAL USES

How can the City attract an optimum mix of retail and service commercial uses?

Discussion: Through a variety of community forums, surveys and visioning efforts, residents and city officials alike have expressed concern that the City is losing significant shopping, entertainment and business opportunities to neighboring areas. A market study conducted in 2002, as part of this General Plan update, identified auto mall and automotive related retail uses as key market areas for the City to pursue, in addition to community serving retail uses. This issue has been recognized by the City and has become a major focus of the City's Department of Housing and Business Development and Economic Development Center. To attract greater commercial development, the City created an Economic Zone within the North Fontana Redevelopment Project Area (north of Baseline Avenue). Within the Economic Zone, the City is waiving city fees for sales tax revenue producing development of 20 acres or more, contingent upon the availability of Redevelopment Agency monies. This program will be in effect through June of 2006.



GOAL #5:

Expanded commercial development at key locations throughout the City serves the needs of the community and captures earlier revenue losses to surrounding areas.

Policies:

- 1) A full range of retail uses that support the local and specialty consumer, without creating adverse impacts on other nearby uses, should be supported.
- 2) Resident-serving commercial development shall be a major priority in the City's land use planning.
- 3) Neighborhood and community-serving retail centers shall be clustered at convenient areas throughout the City to enable one-stop shopping wherever possible.
- 4) The Boulevard Overlay District and Activity Center Overlay Districts should stimulate commercial development at key locations in the City as a means of stimulating successful commercial centers instead of marginal commercial strips.

Actions:

- 1) Track the City's commercial development achievements, including successful strategies and associated fiscal implications, at least every two years.
- 2) Conduct periodic surveys of business owners and residents about the City's performance in meeting shopping and employment needs.
- 3) Implement the provisions of the City's Economic Zone (Ordinance 1400) in order to stimulate commercial development within the area north of Baseline Avenue.

ISSUE #6: REDEVELOPMENT PROJECT AREAS

How can the City's redevelopment powers be used to most effectively sustain economic development?

Discussion: Fontana's Redevelopment Agency has designated five Redevelopment Project Areas: the Downtown Project, the Southwest Industrial Park Project, the North Fontana Project, the Jurupa Hills Project, and the Sierra Corridor Commercial Project. The City's revitalization efforts in the past thirty years have centered on the elimination of blight and the creation of viable, attractive and contributing neighborhoods within its Redevelopment Project Areas. (See Figure 3-1 in the Land Use Element for a depiction of the City's



Redevelopment Project Areas.) Over the years the City's Redevelopment Agency has completed numerous redevelopment, development and infrastructure projects that have revitalized many properties in its Project Areas. The Agency has also participated in the development and maintenance of low and moderate income housing within the City. In administering and implementing these Project Areas the City seeks to:

- ◆ Practice sound fiscal management in all of the Agency's activities;
- ◆ Promote economic development by enhancing and renovating businesses, encouraging private revitalization of properties, stimulating private investment in the Project Areas, assembling and marketing underutilized land, and supporting the installation of site improvements and public facilities to stimulate new commercial/light industrial expansion and employment;
- ◆ Invest in the City's infrastructure by upgrading and maintaining roadways and circulation systems, providing public facilities such as water, storm drain, sewer systems, street lights, parking and signage, and enhancing the City's educational, cultural, and residential resources, as well as other community resources; and
- ◆ Improve public safety in the community.

GOAL #6:

The City's Redevelopment Project Areas are fiscally sound and contribute significantly to the community's economic vitality, public safety, and the creation of its infrastructure.

Policies:

- 1) The City shall continue to promote new development, intensification and revitalization of properties within designated Redevelopment Project Areas.
- 2) Capital improvement strategies shall be used to reinforce the desirability of development and redevelopment within Redevelopment Project Areas.
- 3) Redevelopment funds shall continue to be invested directly in projects that offer affordable housing as part of the City's diverse housing stock.

Actions:

- 1) Inventory and map vacant and underutilized properties in Redevelopment Project Areas and continue to use the City's internet site as an information repository for the real estate sector.



- 2) Establish a partnership with local real estate professionals to develop and utilize a strategy for promoting and marketing properties in Fontana.
- 3) Establish an ongoing program for targeting funds for affordable housing projects, including contact with leading developers in the market area.

ISSUE #7: ECONOMIC DEVELOPMENT STRATEGIC PLANNING

How is the City planning for its Economic Development in the future?

Discussion: As economic change is inevitable, the City recognizes that a pro-active approach is the best strategy to encourage a strong local economy. On-going long-range planning as well as building partnerships with local, regional and national business organizations are ways to plan effectively for the future. As previously mentioned, the City has developed an Economic Development Strategic Plan, which it updates periodically, and implements continuously.

GOAL #7:

Fontana's Economic Strategy continues to succeed in strengthening and diversifying our economic base, stimulating economic vitality, and making the City a net importer of dollars.

Policies:

- 1) Periodic market demand analysis shall be a key part of the City's economic development strategy.
- 2) Partnerships with the private sector, real estate and educational institutions shall continue to be a key component of the City's economic development strategy.
- 3) All City departments shall be involved in contributing to the City's economic development program.

Actions:

- 1) Continue to update and implement the City's Economic Development Strategy.
- 2) Develop a version of the City's Economic Development Strategy that can be used by all City departments in promoting economic development through their professional contacts.



Chapter 8

Public Facilities, Services, & Infrastructure Element





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Chapter 8. Public Facilities, Services, & Infrastructure Element

INTRODUCTION

The Foundation of Sound Planning

The backbone of a growing community is its public facilities, services and infrastructure. In fact, quality of life is often dependent not only on schools, parks, libraries, and police and fire services, but also on the physical infrastructure that sustains it – circulation systems, water, sewers, flood control, electricity, communication, and waste management. Although many people take these facilities for granted, high-growth cities such as Fontana must proactively plan and budget for their provision to meet the needs of a changing population. Given prevailing fiscal and economic constraints, this is a challenging job.

This element covers two related areas: 1) *Public Facilities and Services*; and 2) *Infrastructure*. Public facilities and services address those basic services typically provided by local government: police, fire protection, parks, schools, libraries, community facilities, and health and social services. The provision of parks and recreation programs, an important public function, is addressed in Chapter 10 of this General Plan. Infrastructure addresses the physical systems that sustain a community: water, roads, sewers, flood control, and power. Circulation, a crucial part of a City's infrastructure, is addressed in Chapter 4 of this General Plan.



Support for the General Plan

This element is not a legally mandated part of the General Plan, but its inclusion demonstrates Fontana's commitment to its citizens' quality of life. It supports the Land Use Element by establishing the service standards necessary to support a growing population. In addition, it provides leaders and residents with an update of realistic standards to provide the highest possible levels of service to all segments of the community commensurate with fiscal realities.

ACHIEVING THE VISION

Facilities for a Growing Community

An overriding goal of any General Plan should be to sustain and improve the quality of life for current and future residents of the community. As the City continues to grow, it is imperative that public facilities keep pace with demand. Through the Community Outreach process undertaken to update this General Plan, the following vision for Fontana's public facilities and infrastructure emerged:

- An excellent educational system with high quality facilities;
- A safe community strengthened by police and fire facilities equipped with the latest technology and well-distributed throughout the City;
- High quality infrastructure, supportive of current and future competitive demands; and
- State-of-the-art communication technology linking public facilities, residents and business, in order to more effectively meet current and future needs.

COMPONENTS OF THE PLAN & EXISTING CONDITIONS

A City is much more than houses, streets and roads. Its public facilities and infrastructure provide the framework and support for day-to-day living. This Element seeks to answer the question, "What are the key components of Fontana's public facilities and infrastructure, and what have the responsible authorities done to ensure their provision and continued improvement?" Key components of the City's public facilities system are described and mapped below.



Public Facilities and Services

Schools

- ◆ **Public Schools** – Public education, Kindergarten through 12th grade, is the top priority for many Fontana residents. Although local school boards under the State Board of Education control schools, partnerships with cities are essential for purposes of facilities planning and coordination. The planning area is serviced by five school districts: Fontana Unified, Rialto Unified, Colton Joint Unified, and Etiwanda School Districts, as well as the Chaffey Joint Union High School District.
- ◆ **Fontana Unified School District** covers the largest portion of the City of Fontana and its sphere area to the west. It contains 35 schools, serving a pre-school through adult education population, with 26 elementary schools, seven middle schools, three high schools and three alternative programs.

Table 8-1
Fontana USD Statistical Summary

District Schools	Enrollment As of 8-24-01	Projected Enrollment As of 10-01-01	Capacity
Elementary Schools	19,331	19,876	19,676
Middle Schools	8693	8978	8478
High Schools	9225	9370	9064
Alternative Programs	850	789	N/A
District Total	38,099	39,013	

Source: Michael Brandman Associates, Fall 2001

- **Growth Planning Factors** – Student generation rates (SGR) are used to determine the average number of students produced by a new home. A rate of 1.36 per household is the current overall factor, with rates of 0.69 for elementary, 0.33 for middle school and 0.44 for high school.
- **School Fee Program** – As of March 2003, developer fees for the construction of schools are currently \$6.36 per square foot for all residential developments. This fee is considered the Level II alternative fee as required by state law for hardship districts, and the district completes a fee analysis yearly.
- **Plans for New Facilities, Projected Growth and Constraints** – According to projections by the Southern California Association of Governments (SCAG), Fontana will experience rapid residential growth over the next twenty-five years. Combined with the fact that FUSD includes parts of other jurisdictions within its service



boundaries, this projected increase in population is expected to exert even more pressure on an already burdened school system.

For these reasons, Fontana Unified has expansion and modernization plans for the majority of its facilities. Acquiring new sites is constrained by lack of funding resources and development costs. FUSD is eligible as a financial hardship district with the Office of Public School Construction.

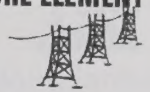
- ◆ **Colton Joint Unified School District** – This district's facilities are located in the southeast portion of the planning area, serving over 21,000 students with 17 elementary schools, four middle schools, two comprehensive high schools, one alternative high school, an adult education program and a child development center. This district serves a smaller student population than FUSD and, since residential development in the area is more static, has yet to reach capacity (see Table 8-2 below). However, urban growth in the as-yet undeveloped areas in South Fontana could test the capacity of this district as well.

Table 8-2
Colton Joint Unified Statistical Summary

District Schools	Current Enrollment	Capacity
Lewis Elementary (K-6)	788	875
Bloomington Middle (7-8)	614	650
Bloomington High (9-12)	2,087	1,970
Jurupa Vista	817	1,000
D'Arcy	783	875

Source: Michael Brandman Associates, Fall 2001

- **Growth Planning Factors** – CJUSD also bases growth rates upon Student Generation and fee programs for new housing. Their rates per dwelling unit are as follows: K-6 - 0.59; middle school - 0.16; high school - 0.21 for a total of 0.96, slightly less than one student per dwelling unit and substantially less than figures for FUSD. The fee program standards (costs per square foot) consist of the following: \$3.87 for new construction; \$2.05 for additional space; and \$0.33 for commercial uses.
- **Plans for New Facilities and Expansion** – CJUSD's expansion plans include the construction of a 12-acre elementary school site near the Forecast Homes Tract 16074. The District is in the process of purchasing property for construction of two additional elementary schools.



- ◆ **Etiwanda School District (ESD)** – This district's facilities, focused solely on elementary education and a forthcoming intermediate school, are located in the northwest portion of the planning area. As of Fall 2001, the district served 2,945 students and had a capacity of 3,694.
 - **Growth Planning Factors** – ESD's Student Generation Rate for single-family homes is 0.66 students for K – 8 and 0.21 for multifamily units. The fee program is \$2.61 per square foot for residential plus a special tax of \$2210.38 for commercial development assessed at \$0.23 per square foot.
 - **Future Growth** – As with other districts in the area, the student population of EDS is increasing and the district has completed plans for a new intermediate school.

- ◆ **Chaffey Joint Union High School District (CJUHS)** – This high school district serves students in the northern portion of the planning area. As of fall 2001 the District enrolled more than 20,000 students in the communities of Ontario, Montclair, Rancho Cucamonga and portions of Fontana, Upland, Chino and Mount Baldy. It contains 8 comprehensive high schools and two continuation schools and is currently operating above capacity.
 - **Growth Planning Factors** – This district's Student Generation Rate is 0.20 per residential unit. It collects developer fees of \$0.64 per square foot for residential and \$0.10 for commercial. These fees are 31% of the State Statutory fee of \$2.05 for residential and \$0.33 for commercial.
 - **Future Planning** – With the recent opening of two new high schools, attendance boundaries may change. The district continues to experience major growth.

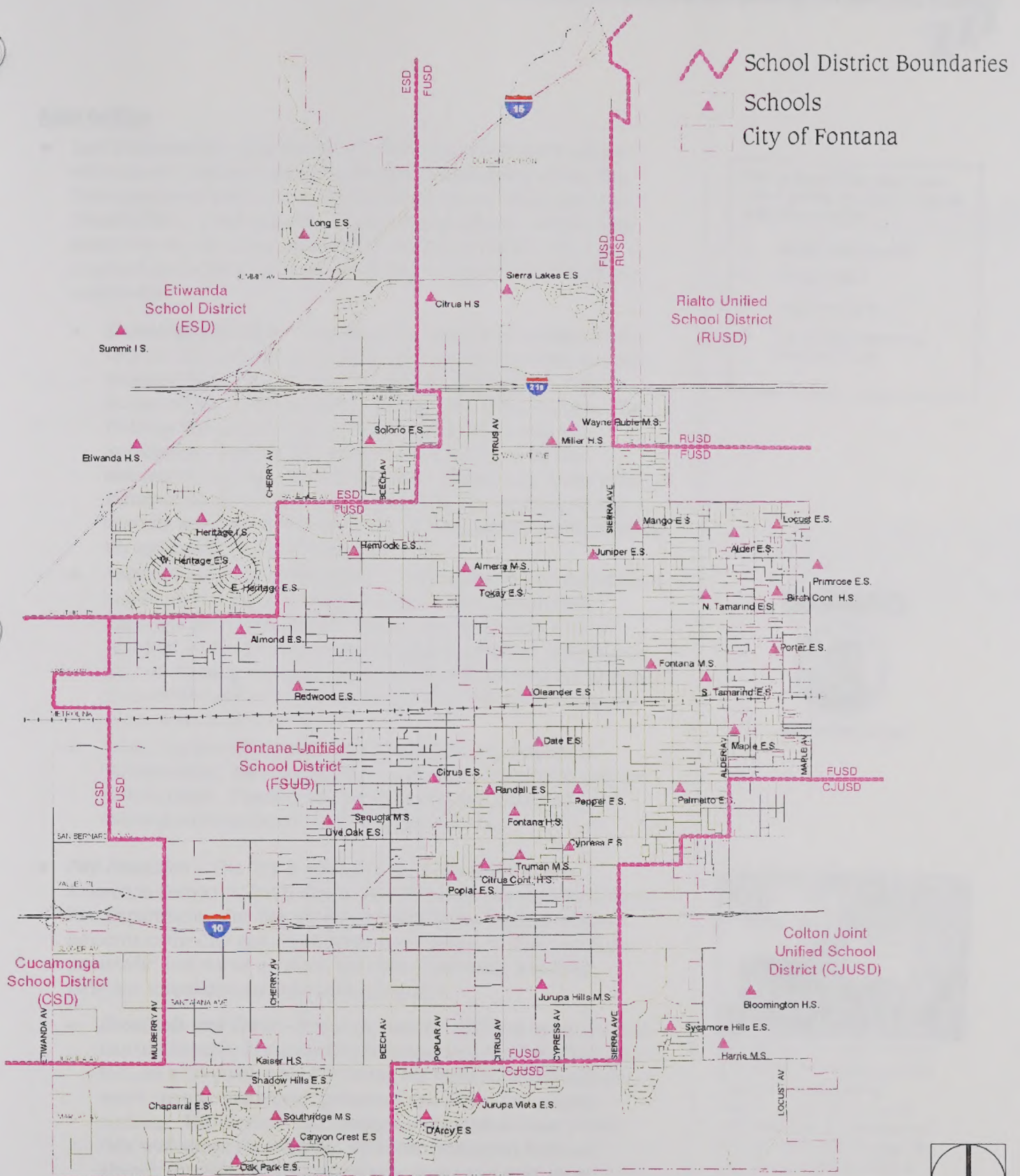
- ◆ **Rialto School District (RSD)** –The District serves students in a fifty-five square mile area. Included in the boundaries are the City of Rialto, the western portion of the City of San Bernardino, small segments of the cities of Colton and Fontana, and some unincorporated county territory. The District was founded in 1891 and was unified in 1964.

- ◆ **Summary of School Facilities Planning** – All of the districts serving Fontana share one commonality: there are aggregate deficiencies in facilities to serve Fontana's students. However, conditions among the districts seem to vary: there are cost differentials in fees charged by the Districts, locational "holes" in facilities, significant differences in the student generation rates used from district to district, and joint-use policy distinctions. School district boundaries and school facilities in the planning area are mapped in Figure 8-1.



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School Districts & School Facilities



1" = 6,500'

Chicago Public Schools

Chicago

Chicago





Public Facilities

- ◆ **Law Enforcement** – The Fontana Police Department provides law enforcement services within the corporate boundaries of the City. Unincorporated areas are served by the San Bernardino County's Sheriff Office. These agencies operate independently within their respective service areas, although cooperation between them is required under the State Mutual Aid Pact and has been effectively undertaken.
 - **Standards and Costs** – Standards for police and staffing levels vary by City and region due to budget constraints, land use and demographics. Standards developed for the Western United States call for 1.8 sworn police officers per 1,000 citizens. The Fontana Police Department (FPD) believes that a more appropriate standard for this City is 1.4 based on its law enforcement needs. The FPD has also adopted a 33% free time standard for its officers to be able to respond on demand, but it must be remembered that to maintain that standard also requires the appropriate level of support staffing.
 - **Future Planning and Financing** – The Fontana Police Department has developed plans to meet projected residential growth. Although the current police facility is adequate for a City of 160,000, a new contact station is being planned to complement the two existing stations. These small local stations are designed to meet the needs of residents in rapidly growing northern and western areas of the City.
 - Financing law enforcement operations is a very important consideration. Fees are exacted on new development to pay for new facilities. Funding for the operation and maintenance of existing services comes from the General Fund.
- ◆ **Fire Protection** – The City is served by the Central Valley Fire Protection District (CVFPD) that is part of the San Bernardino County Fire Department. The fire district operates seven stations within or adjacent to the City and, in addition to responses to fires, conducts paramedic and rescue services, hazardous materials handling, structure inspection and education programs.
 - **Standards and Costs** – Fire departments' ability to suppress fires has traditionally been rated by the Insurance Service Office (ISO), Inc., on a 10-point scale ("1" being the highest) which includes water supply, equipment, personnel and alarm and paging systems. The current "ISO" rating for Fontana is Class 3 that falls well above the average. With two additional facilities already planned, the ISO rating may drop to an even more efficient rating of 2. The current average response time to any area of the City is 4 to 5 minutes.

The Fontana Police Department runs a number of crime prevention programs including:

- Neighborhood watch
- Police Cadets
- Explorer Program
- Community Emergency Response Team

WARNING



NEIGHBORHOOD WATCH



Fire Station 72 protects the City of Fontana and unincorporated areas of San Bernardino County. It also serves as the administrative headquarters of the San Bernardino County Fire Department's Valley Division.



Fire Station 74 is located in the Southridge area of southwest Fontana. This station also serves as a substation for the Fontana Police Department.



Illustration of proposed new City library "resource center."

- **Future Planning and Growth** – Continued growth will affect the fire protection services provided by CVFPD. Since the City pays some of the costs of fire protection, consistent funding and planning is a high priority. In addition, of crucial importance is the provision of adequate water flows in newly developing areas of the City.

- ◆ **Library Services** – Library service in the City is provided by the San Bernardino County Library system. The original Fontana Branch Library, located east of City Hall, is a 13,000 square foot building constructed in 1963. This facility falls short of reaching the national minimum standard of two books per capita. The County also maintains 5,500 square feet of part time library space at Kaiser High School via a joint use agreement with Fontana Unified School District. The facility is available to the public after school, evenings and Saturdays.

- **Future Planning and Growth** – In 2001, the design for a new and expanded City library to replace Fontana Branch library was approved. This 95,000 square foot facility is designated as a "Resource Center" within the San Bernardino County system. The project is classified as Tier 1, First Priority in San Bernardino County's Library Facilities Master Plan. Pending final funding and development, it is planned to contain over 300,000 volumes, a 350-room auditorium, homework, career and literacy centers and the latest in educational technology.

To further serve a growing population, the City has expressed a desire to extend library services. The County's Library Facilities Master Plan also incorporates a recommendation for a Tier 2, Second Priority, 8,500 facility in either northern Fontana or Rialto. The facility is envisioned as joint use with a high school, similar to the Kaiser High School Facility already in existence. The City is exploring alternative funding sources for additional library services (including City-imposed developer impact fees) in conjunction with the San Bernardino County Library system.

- ◆ **Health Services** – There are five major health care facilities within 12 miles of the planning area that provide full health care and emergency coverage on a 24-hour basis. The only hospital facility within the City is the Kaiser Foundation Hospital that contains 465 licensed beds. This corresponds to almost 8 beds per 1,000 residents, well above the accepted standard of 4.5 beds. However, this is a private Health Maintenance Organization open only to members. As a result, some residents must travel outside of the City limits for health services. Other health facilities within the City include doctor and dentist offices, optometrists, health clinics, and nursing homes.



A facilities analysis recently revealed the need within the City for a mental health center and a burn facility. The central valley fire protection district, a public agency under contract with the City, provides paramedic service.

Public facilities, including police and fire stations, libraries and community centers and other City facilities, and utility corridors are mapped in Figure 8-2. (See Chapter 10, Parks and Recreation Element for figures depicting the location of City parks and recreation facilities.)

Infrastructure

Water Resources

The City's water system is mapped in Figure 8-3. Water is provided to the City primarily by three agencies: The Fontana Water Company (FWC), Cucamonga County Water District (CCWD) and the West San Bernardino County Water District (WSBCWD). Two other water agencies, the Crawford Canyon Water District, and the Marygold Mutual Water Company provide water for small portions of the planning area in the northern and eastern portions of the planning area. Together, these companies can meet the needs of the City and its sphere of influence areas. Though the infrastructure of each company operates independently, their interface provides uninterrupted service.

Wastewater

The City's Sanitary Sewer System is mapped in Figure 8-4. The City maintains more than 250 miles of 6'-42" sewer lines and six sewage pump stations, as well as provides industrial wastewater permitting and enforcement pursuant to the Clean Water Act of 1972. Regional domestic wastewater treatment services are provided under the Regional Sewer Service Contract in which seven agencies currently contract with the Inland Empire Utilities Agency (IEUA). These agencies include Fontana, Cucamonga County Water District, Montclair, Upland, Chino, Chino Hills and Ontario.

New development within the planning area will affect four primary service programs: regional domestic wastewater treatment, non-reclaimable waste water collection and disposal, importation of supplemental water supplies and water resources management with the Chino groundwater basin.

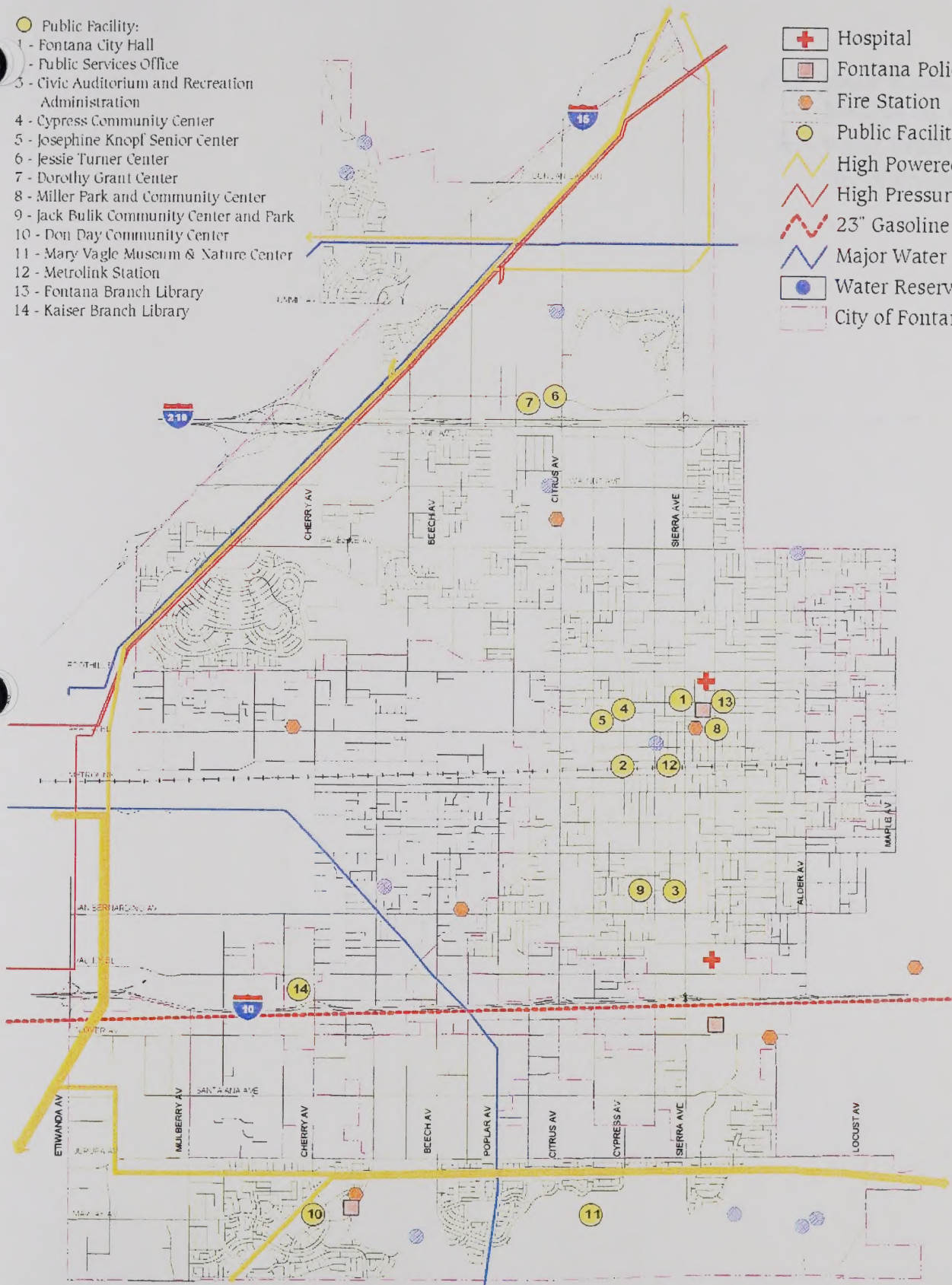


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Public Facilities

- Public Facility:
- 1 - Fontana City Hall
- 2 - Public Services Office
- 3 - Civic Auditorium and Recreation Administration
- 4 - Cypress Community Center
- 5 - Josephine Knopf Senior Center
- 6 - Jessie Turner Center
- 7 - Dorothy Grant Center
- 8 - Miller Park and Community Center
- 9 - Jack Bulik Community Center and Park
- 10 - Don Day Community Center
- 11 - Mary Vagle Museum & Nature Center
- 12 - Metrolink Station
- 13 - Fontana Branch Library
- 14 - Kaiser Branch Library

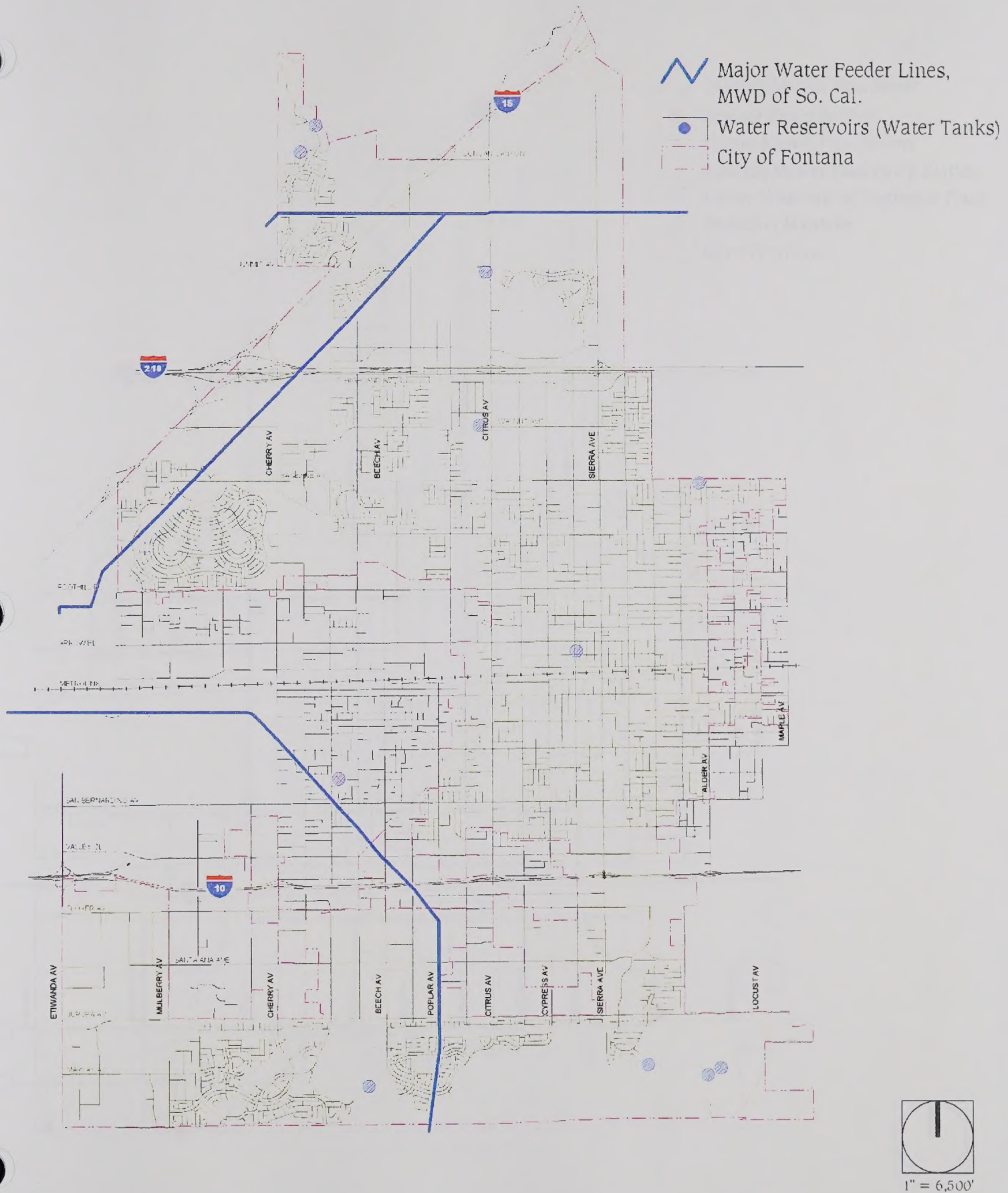
- Hospital
- Fontana Police Dept.
- Fire Station
- Public Facilities (See Table at Left)
- High Powered Electrical Lines
- High Pressure Gas Mains
- 23" Gasoline Pipeline
- Major Water Feeder Lines
- Water Reservoir (Water Tanks)
- City of Fontana



1" = 6,500'



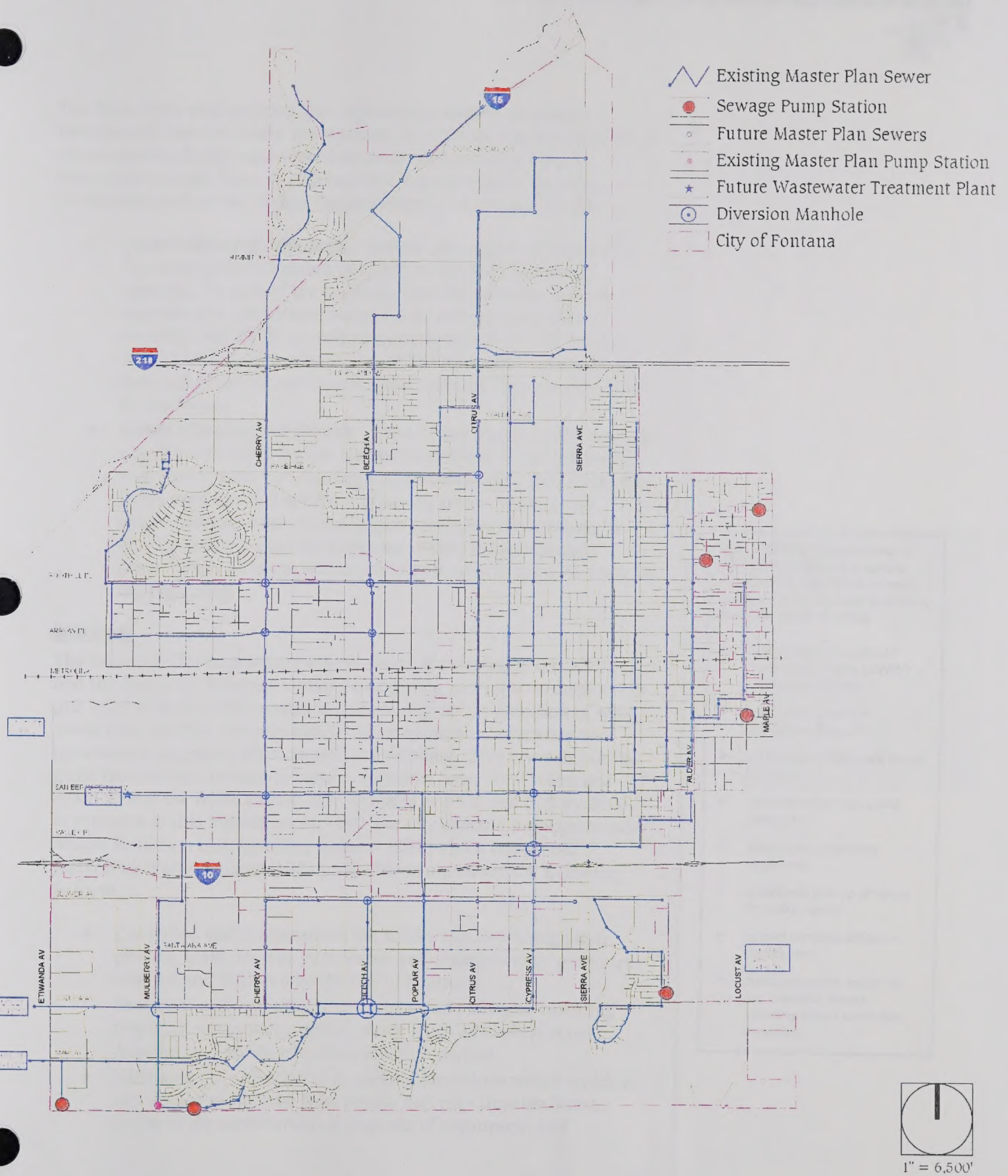
Water System



Water System
City of
Water System
City of



Sewer System



1. The first part of the report is a description of the project. This includes a brief overview of the project's purpose and objectives, a description of the project's scope, and a list of the project's participants. The second part of the report is a description of the project's progress. This includes a description of the project's current status, a description of the project's future plans, and a description of the project's results. The third part of the report is a description of the project's impact. This includes a description of the project's impact on the community, a description of the project's impact on the environment, and a description of the project's impact on the economy.





The IEUA owns and operates four regional wastewater treatment facilities and has one under construction. In addition, the Agency owns a co-composting facility and several domestic and industrial trunk interceptor sewage lines. It also has four Regional Water Recycling Facilities as well as the Carbon Canyon Waste Reclamation Facility.

- ***Growth Planning Standards*** - Growth planning is closely tied to the urban growth forecast put forth by IEUA's contracting agencies. As part of the Regional Contract, member cities or agencies pay connection charges of \$3,860 per equivalent dwelling unit (EDU) as well as monthly fees of \$15.06 per EDU. The City also pays a capital cost of \$770 per EDU. Commercial costs are based on type of use and number of fixtures, multiplied by use factor.
- ***Future Planning and Growth*** – IEUA began Phase 1 of its regional recycled water distribution system project which will ultimately loop together the two existing recycled water distribution systems in the northern and southern planning areas. Phase 1 will deliver recycled water to the largest customers first, helping to develop future project development. Major industries and groundwater recharge will be the biggest uses of recycled water in the beginning.

Solid Waste

The State's California Integrated Solid Waste Management Act (AB 939) and the California Beverage Container Recycling and Litter Reduction Act (AB 2020's "Bottle Bill") mandate numerical goals for diversion of solid waste from landfills and rely heavily on conservation, education and information programs, litter control and recycling. This law sets out the goals that require Fontana to reduce, recycle or reuse solid waste and divert 25% of the waste stream from landfills in 1995 and 50% by 2000. In response to this legislation, in 1990, the City adopted a comprehensive Source Reduction and Recycling Element (SRR) and a Household Hazardous Waste Element (HHW). The Elements served the following purpose:

- Quantified and characterized the solid waste, including paper, plastics, glass, metals, yard waste, and organic waste, generated, diverted and disposed by the City of Fontana;
- Examined and evaluated source reduction strategies including recycling, composting, special waste (such as medical waste) disposal, and public education and information,
- Addressed the collection of household hazardous waste, which is any discarded material from homes that may threaten human health or the environment if disposed of improperly; and

The City of Fontana operates a number of programs to reduce, recycle and properly divert solid waste from the sanitary landfills to meet the State mandate:

- a permanent Household Hazardous Waste (HHW) Collection Facility;
- a curbside Used Oil Collection Program;
- a Household Materials Reuse Center;
- xeriscaping/grass cycling programs;
- composting/mulching programs;
- a curbside pick-up program for bulky items;
- special curbside collection events; and
- public education materials and outreach events, including school curriculum materials.



- Described a funding component to plan, develop and implement the programs identified in the element.

Solid waste disposal services for Fontana are provided by Burrtec Waste Industries, a private company under franchise agreement with the City of Fontana. Burrtec also operates the City's curbside recycling (including greenwaste recycling) program. Currently, the Mid-Valley Landfill located adjacent to the City of Fontana, in Rialto, is the primary solid waste depository for the area. The landfill is projected to have approximately 40 years of capacity left.

The challenge for Fontana, as well as communities throughout the state, is to continue to find diversion, recycling and reuse strategies instead of relying on sanitary landfills as the primary method of managing solid waste. As the region grows, it becomes more difficult to site or expand landfills due to the unpopularity of these types of facilities.

Flood Control

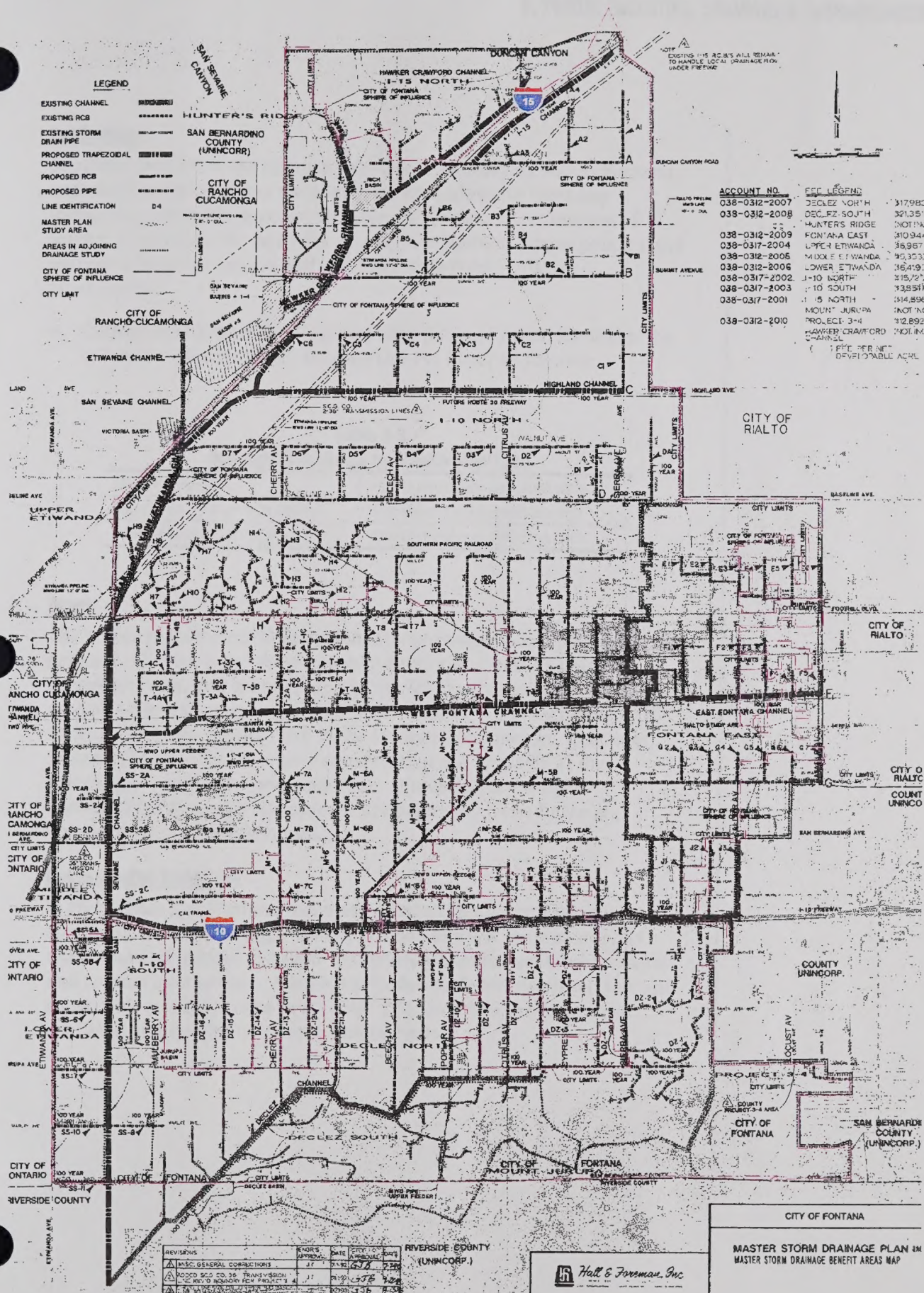
Both the City and the San Bernardino County Flood Control District provide flood control facilities for Fontana. The Flood Control District agency is responsible for the construction of dams, containment basins, channels and storm drains to intercept and convey flood flows through and away from developed areas. The City implements construction and maintenance of local storm drains that feed into the County's area wide system.

The San Sevaine Creek Project traverses the western edge of the City, draining all lands west of Sierra Avenue. The De Clez Channel provides protection along the base of the Jurupa Hills in the Southridge Area. Land east of Sierra drains to the Rialto Channel. Channelization for the southeastern quadrant of the City is being planned. Flood control facilities are being built in Fontana north of the I-210 freeway as development progresses in that area.

In addition to these efforts, water quality control mandates from the federal government under the National Pollutant Discharge Elimination System (NPDES) require permits for storm water discharges from municipal storm sewer systems. As a permittee within the Santa Ana Regional Water Quality Control Board Basin Plan, the City of Fontana implements a Municipal Storm Water Management Plan (MSWMP), which prohibits and regulates specific types of discharges, mandates inspections and public education, puts controls on new development and redevelopment, and specifies site and construction site maintenance practices. The City's flood control system is mapped in Figure 8-5.



Flood Control System



City of Fontana General Plan





Gas Services

Southern California Gas Company provides gas services within Fontana, and supplies and services adequate and expandable to meet any foreseeable demands imposed by future development. Extension of service is based on the initiation of a service contract whose policies and extension rules are on file with the California Public Utilities Commission.

- ◆ **Current User Statistics** – Typical yearly demand for residential units is based on System Area Average/Use Per Meter as follows:

Table 8-3
Average Gas Usage by Residential Type

Single Family	799 therms/year dwelling unit
Multi-Family 4 or less units	482 therms/year dwelling unit
Multi-Family 5 or more units	483 therms/year dwelling unit

Power

The Southern California Edison Company provides electric power for Fontana. Service is provided to newly developed areas, as part of a service contract, and generating capacity for the area is sufficient to accommodate future growth. As a public utility, SCE is regulated by the state of California through the Public Utilities Commission. Customer information and tips on energy conservation are available at the company's website at – www.sce.com. Discussion of energy conservation strategies is discussed in Chapter 9 – Open Space and Conservation – of this document.

Communication Technology

In this digital age, Fontana has made great strides in improving its communication technology. Its City website at www.fontana.org has numerous and informative links to City departments, community events and contact information. Adelphia provides cable television services and some cable modem service in the City. DSL access to the Internet is available in the community on a limited basis.



ISSUES, GOALS, POLICIES, & ACTIONS

ISSUE #1: SCHOOL CAPACITY AND ENROLLMENT

How can adequate school capacity be provided as our student population increases?

Discussion: While schools are not the direct responsibility of the City – rather that of school districts that serve the community – the provision of educational facilities is one of the most prominent public facilities challenges in a high-growth area that seeks to attract families. Especially since there is a separation of responsibility and authority regarding development approvals and school development, this requires an unusually active collaboration between the City and its supporting school districts.

Most of Fontana's students are served by the Fontana Unified School District, although portions of the City are within the service areas of adjoining districts. Almost every school is at or above capacity and, with the steady population growth projected for the area, it will be a challenge to build enough classroom capacity for growing student bodies. Although planning and construction of schools is the responsibility of local school districts, there is much that cities can do to assist this crucial effort.

Funding for school construction is difficult to obtain, and changing fiscal constraints at the state level make it even more of a challenge. New development pays for part of school construction, with Fontana's school fee program among the highest in the region at \$6.36 per square foot for all residential development. It is important to remember that our goal is not just to add more portable classrooms, but to work together to build high-quality schools that are the pride of students, their families and the community.

GOAL #1:

High quality schools with adequate physical capacity are provided in all areas of our City.

Policies:

- 1) Planning and development in the City shall continue to be integrated with the needs of school districts for new facilities.
- 2) Local school districts shall continue to be supported in their efforts to obtain additional funding sources, including special assessment districts and supplementary state and federal funding.



- 3) Effective joint use agreements shall continue to be established and maintained with school districts serving the community to achieve optimum, cost effective use of school facilities.
- 4) Building permits shall continue to be withheld until verification that applicable school fees have been collected by the appropriate school district.
- 5) Collaboration with school districts should occur in designing adjacent school/recreation facilities to achieve maximum usability and cost effectiveness for both the City and the school districts.
- 6) Collaboration with school districts should occur in expanding educational opportunities and programs that benefit from City facilities.

Actions:

- 1) Prepare and maintain a school/park facilities planning map and associated growth projection for the general plan area, jointly with the school districts, that enables consistent planning and implementation of schools and parks.
- 2) Identify forthcoming educational funding initiatives that the City should be aware of and support.
- 3) Review existing joint use agreements and cooperatively develop improved agreements where deficiencies are found.
- 4) Develop joint use agreements with districts where none presently exist.
- 5) Review the development approval process and verify appropriate safeguards for the collection of school fees prior to occupancy.
- 6) Evaluate and document the opportunities for City facilities to be treated as assets for the school system. Pursue opportunities thus defined.
- 7) Evaluate cooperative program opportunities for consideration as ways to provide additional community educational benefits through City/school districts collaboration.



ISSUE #2: LAW ENFORCEMENT AND FIRE PROTECTION

How can our City continue to improve its police and fire protection services?

Discussion: Law enforcement, and the related reality and sense of security associated with superior protection of life and property from criminal activity is a major factor in the quality of life attractions of the community. Accordingly, adequate facilities effectively distributed throughout the community staffed by a sufficient number of police officers and support personnel remains a very high priority. The fact that the City has its own police department provides an opportunity to focus attention on levels of service and the means to sustain it or improve upon it as the community evolves.

The Fontana police department (FPD) has continued to expand to meet the needs of its growing population. Its current ratio of officers per 1,000 residents stands at 1.0, and its goal of 33% free time for patrol officers has been met. The free time standard enables officers to respond to emergencies and be out in the field. As the population grows, this free time percentage can only be maintained if support staff positions are also added. Since the City does not have its own fire department, emergency services and disaster preparedness planning is the responsibility of the FPD. As it grows, the department must make important decisions on the location of new facilities and the best use of its budget.

For fire protection, the City contracts with the central valley fire protection district, part of the San Bernardino County Fire Agency. Paramedics are provided and each station, and current response time to any area of the City is 4 to 5 minutes.

GOAL #2:

Our law enforcement and fire protection services meet our population's public safety needs and contribute to a sense of safety and high quality of life in our community.

Policies:

- 1) Continue to work towards a ratio of 1.4 sworn police officers per 1,000 residents in the City.
- 2) Continue to achieve 33% free time for police patrol officers.
- 3) The FPD's area commander program shall continue to be expanded in order to more effectively serve specific areas of the City.



- 4) The FPD's contact stations program shall be expanded to more efficiently serve outlying areas.
- 5) The FPD's school resource officer program shall be continued on all current and future middle school campuses.
- 6) The FPD's extensive volunteer crime prevention programs, including citizen volunteers, explorers, citizens on patrol, neighborhood watch, police reserves, and community emergency response team shall be continued.
- 7) The FPD's bilingual incentive program should be continued in order to more effectively serve the Latino community
- 8) Adequate fire and police response times shall be maintained in the City.
- 9) An "ISO" fire rating of class 3 shall continue to be maintained in the City.
- 10) Ensure that new fire stations shall be built in areas of new development so that response times are not eroded.

Actions:

- 1) Incorporate appropriate staffing levels in the annual budget process keyed to City growth in population and employment.
- 2) Develop procedures for providing neighborhood contact stations as new areas in the City develop as well as for any portions of the City deemed deficient.
- 3) Prepare a planning map and action plan that identifies police/fire station development strategies to accommodate new growth patterns.
- 4) Evaluate the potential for combining new police/fire facilities where it can be demonstrated that public investment would best be served.
- 5) Prepare and maintain an action plan to achieve improvements that will maintain the class 3 ISO fire rating.

ISSUE #3: LIBRARY, CIVIC CENTER AND CIVIC AUDITORIUM

How can our City best provide for civic functions, library services and performing arts capabilities?

Discussion: The City's civic center campus is our public "downtown." Its proximity to the historic commercial downtown reinforces the vitality of both functions. To the extent that additional public serving functions can be located here, the convenience factor and synergy with nearby



private commercial enterprise will improve. This also represents a stronger return on the public's investment.

The key component of Fontana's downtown revitalization efforts is its re-planned civic center campus, which could include a new state-of-the-art library. Located on Sierra Avenue, the new facilities are planned to be highly visible, accessible and attractive. By combining civic, educational and cultural facilities in one convenient area, the City has taken an important step in filling a key community need. The existing City-owned Fontana Civic Auditorium on Sierra Avenue south of downtown Fontana is another opportunity for quality improvements.

San Bernardino County's Library Facilities Master Plan provides specific direction for the enhancement and expansion of library services, including new branch libraries in Fontana in new buildings and joint use facilities. It will be critical for the City to work closely with the County and school districts in implementing this Plan.

GOAL #3:

Our new civic center campus, along with the new Fontana library, fulfills its vision as a multi-use community focal point, providing civic, educational, entertainment and cultural uses.

Policies:

- 1) The public uses and quality of the civic center campus should seek to be strengthened, as this area becomes a major focal point for the community.
- 2) A new library in the civic center shall be maintained in such a way that it functions as a key educational center and community gathering place.
- 3) Library services should be provided in selected convenient locations in outlying sectors of the community, in coordination with school districts for joint use.
- 4) A basic level of facility support for community arts performances should be maintained.

Actions:

- 1) Evaluate the potential for expanding/diversifying public uses in the civic center campus.
- 2) Coordinate with San Bernardino County in implementing its library strategic plan for locating, funding and diversifying library facilities/services over the next 20 years, including methods of sustaining community library services support.



- 3) Determine the extent to which the City is willing and able to facilitate continuing performing arts opportunities within the City. Options could include non-profit organization support, City partnerships, joint programs with school districts, scaled-back community theater operations, collaboration with regional arts foundations or some combination or phasing of these options.

ISSUE #4: HEALTH CARE SERVICES

How can our City improve the provision of health care services for all segments of the community?

Discussion: Except for the provision of paramedic services, health care is a private sector activity. Yet, it is certainly a mark of community quality to have health care facilities conveniently located for City residents and workers. The City's role, then, is to promote and support the location of appropriate health care facilities to serve the community, working with health care organizations that express an interest in serving this health care market.

As Fontana and the region around it continue to grow, there will be increasing demand on health care facilities. Although the Kaiser foundation hospital contains almost 500 beds, and will treat emergency patients who are not members of the Kaiser HMO, it is a private facility, and the only hospital within the City limits. There are several health clinics and nursing homes, but the City is without a mental health clinic and a burn facility.

GOAL #4:

Health care services in our City are accessible and comprehensive, meeting the needs of all segments of the population.

Policies:

- 1) Community paramedic service shall continue to be provided through the City's contract with the Central Valley Fire Protection District.
- 2) Health care facilities capable of broadly serving the public's needs shall be sought for location within the City, including facilities for specialized care, where there is a sufficient patient base.

Actions:

- 1) Form a public/private health care advisory committee to assess the health care services within the City with the goal of making recommendations for their continued improvement. This evaluation should include the need for general hospital services, emergency care,



mental health services, burn treatment and medical services for low/moderate income residents.

ISSUE #5: INFRASTRUCTURE QUALITY AND RELIABILITY

How will our City continue to provide adequate and high quality infrastructure to serve existing and future residents?

Discussion: As the population within Fontana and the region has exploded, the City has done a remarkable job building the infrastructure to support this growth. Nevertheless, much more needs to be done. The City has adopted the Seven-to-Ten Year Robert W. Weddle Capital Improvements Program, named after esteemed City engineer Robert W. Weddle (who served the City from 1990-2001), which consists of 27 separate projects to increase traffic circulation, storm drainage, sewer facilities, and flood control improvements.

The City is working to improve its parks and recreation system (See Chapter 10, Parks and Recreation Element), water provision facilities, solid waste reduction programs, and communications technology connectivity. Determining funding strategies for infrastructure is an ongoing process, and the City needs to employ a variety of strategies in its implementation program.

GOAL #5

Careful planning ensures the timely, logical and cost-effective development of infrastructure facilities in our City.

Policies:

- 1) Development and supporting infrastructure shall be phased so that contemporary infrastructure is available concurrent with the occupancy of development projects.
- 2) Development should be approved in a pattern that avoids the need to extend infrastructure excessive distances to provide service and support.
- 3) Infrastructure installation shall be coordinated within public rights-of-way so that multiple disruptions are avoided.
- 4) Sufficient financial support for infrastructure maintenance shall be devoted so that current levels of service, health and safety are sustained or improved.
- 5) Development within the City's sphere of influence shall be accompanied by infrastructure at the same standards as those imposed by the City.

**Actions:**

- 1) Review standard conditions of approval for development projects to determine if infrastructure requirements are sufficient or if they need to be modernized.
- 2) Review the master plans of drainage and sewers to determine if their provisions or standards need to be modified.
- 3) Include all aspects of infrastructure maintenance, including repair, upgrade and replacement, in the annual budget process, based on an assessment of infrastructure conditions throughout the City.
- 4) Review county infrastructure standards and seek adoption of more stringent standards if necessary to conform to City requirements.
- 5) Develop a full funding mechanism to provide for long term maintenance and replacement costs.

ISSUE #6: WASTEWATER TREATMENT

How can our City best manage its wastewater?

Discussion: The City contracts wastewater treatment services as part of a joint utility agency, IEUA, and the City of Rialto. The City needs to dispose of its wastewater in a manner that is both cost-effective and environmentally sound. The goal is to recapture and treat as much wastewater as possible for selective use because water is and will continue to be an ever more precious resource in our semi-arid environment. Finally, the City must also comply with the requirements of the Clean Water Act and provide the highest quality effluent for reuse.

GOAL #6

Our City manages its wastewater in an environmentally sound and cost-effective manner.

Policies:

- 1) The City's current Master Plan of Sewers shall be maintained as the basis for development of a sewerage system to serve the community.
- 2) The City's local and trunk sewer system shall be designed and operated its in close collaboration with the Inland Empire Utilities Agency.
- 3) An aggressive water-recycling program shall be established and maintained in City.



- 4) Sufficient financial support for wastewater system maintenance (repair, upgrade, replacement, preventive maintenance) shall be devoted so that current levels of service, health and safety are sustained or improved.
- 5) Federal, State and local ordinances shall be enforced in order to comply with Clean Water Act/NPDES requirements.

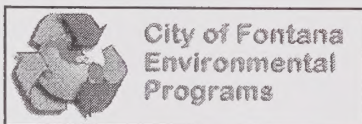
Actions:

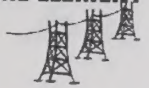
- 1) Review and update or schedule the update of the Master Plan of Sewers.
- 2) Effectively and efficiently maintain a sewage collection system that is in compliance with Clean Water Act standards and provisions.
- 3) Enforce all Clean Water Act regulations.
- 4) Prepare and implement a water-recycling program in conjunction with the IEUA.

ISSUE #7: REDUCING SOLID WASTE

How can the City best continue to reduce the amount of its solid waste and dispose of it?

Discussion: The recycling and disposal of solid waste has become an important state, regional and local concern. The goal is to reduce the growing waste stream generated by residences and businesses and to find sufficient land for its disposal. The City of Fontana's adopted Source Reduction and Recycling Element (SRR) and a Household Hazardous Waste Element (HHW) guide solid waste handling in the City in response to State legislative (AB949) mandates. In the year 2000, the City met its recycling goal of 50% diversion rate, achieving a total rate of 54%. Further gains in waste reduction are ever more challenging on a per-capita basis because of reductions already achieved. Absent new technological breakthroughs on solid waste reduction, the City's main course of action is to incrementally and continuously seek further reductions in the waste stream its resident and business citizens generate.



**GOAL #7**

Our City has one of the most effective solid waste reduction and recycling records in the County.

Policies:

- 1) Where joint programs offer improved efficiency or reduced cost, the City shall collaborate with other entities in waste recycling efforts.
- 2) Services shall continue to be provided to resident and business citizens that facilitate community cleanup, curbside collections and diversion of oil and other hazardous waste materials.
- 3) An aggressive public education program shall be maintained to stimulate recycling, reuse and waste reduction by its resident and business citizens.

Actions:

- 1) Continue to implement the policies and programs identified in the City's SRR and HHW, and annually evaluate their effectiveness.
- 2) Review and evaluate the current waste hauling contract to determine if it can be improved upon with respect to cost and recycling effectiveness.
- 3) Evaluate and update hazardous waste management programs and implement improvements based on current best practices.
- 4) Evaluate and update community education programs on solid and hazardous waste disposal to insure that this information is as broadly available as possible, especially through the school system.

ISSUE #8: IMPROVING FLOOD CONTROL FACILITIES

How can our City most effectively finance and complete its flood control system?

Discussion: The City is actively completing its flood control/storm drainage infrastructure. The master plan storm drains are those that collect run-off from local areas and drainage systems and discharge it to major drainage facilities. The County is planning improvements on the San Sevaine and Etiwanda Channels while the City is concentrating on the channels and storms drains that link to them. In most cases, master plan storm drainage facilities are planned for the required 100-year flood protection.

The City has adopted a Master Storm Drainage Plan and a fee program to finance it. Nevertheless, successful completion of the plan requires



continued cooperation with the San Bernardino County Flood Control District and project-based exactions in compliance with the plan.

GOAL #8

Our City's flood control and drainage system is equitably financed and offers exceptional protection of lives and property over a full range of minor to major floods.

Policies:

- 1) Maintain the City's current Master Storm Drainage Plan as the basis for development of a flood control system to serve the community.
- 2) Drainage planning and implementation shall be coordinated with the San Bernardino Flood Control District and adjacent cities.
- 3) Dual use concepts should be applied to flood control design as a means of enhancing open space/habitat and conserving water.
- 4) Upstream runoff management and facilities should be influenced within the City's sphere of influence and beyond.

Actions:

- 1) Review and update or schedule the update of the Master Storm Drainage Plan.
- 2) Condition development based on safety and environmental considerations related to flooding.

ISSUE #9: PUBLIC UTILITIES

How can our City best be served by public utilities that offer reasonable cost and state-of-the-art services?

Discussion: We have assumed in the past that certain necessary utility services such as electrical power, gas and telephone would always be provided in response to growth. These are facilities and services provided by private companies under some form of Public Utilities Commission oversight. As our community continues to develop in previously vacant areas, coordination with public utility companies to ensure seamless service provision will be necessary.

**GOAL #9**

Public utility companies provide contemporary levels of service in our community at competitive rates.

Policies:

- 1) Growth projections should be provided to utility companies periodically as the basis for their projection of facility and service needs to support community development.
- 2) The installation of utilities shall be coordinated so that disruption of public rights-of-way and private property is kept to a minimum.
- 3) Collaboration with utility companies shall occur to achieve the maximum undergrounding of utility lines commensurate with available funds.

Actions:

- 1) Design and distribute annual estimates and projections of growth to utility providers in the City's planning area.
- 2) Establish and maintain a utility coordinating process to coordinate installation of utility pipes and lines in public rights-of-way and through private property. Include provisions for appropriately conditioning development projects.
- 3) Establish and maintain a utility undergrounding program.

ISSUE #10: ENHANCED COMMUNICATION TECHNOLOGY

How can our City build an integrated telecommunications network that links homes, business, schools and local government?

Discussion: More and more communities are becoming "wired". This means they are building a community "Intranet" which connects homes with each other and with the myriad of public and private services available to them. A communications-based infrastructure has so many advantages beyond entertainment and education – it reduces excess vehicle trips, disseminates information on government and community events, provides a forum for interactive Town Hall meetings, and gives homes and business instant links to security.

Fontana has already made great strides in communications technology, and it is positioning itself to do much more. Its "Fiber to the Community" program is envisioned as going far beyond high-speed Internet service; the City intends to develop and set into motion a comprehensive plan designed to bring an array of services to residents, businesses and local government, including phone services. The obvious



challenge for the City is to link existing areas as well as rapidly growing areas to the north.

GOAL #10:

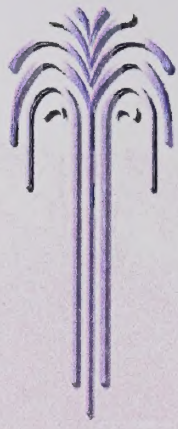
Our City uses the latest in communication technology to conveniently link homes, businesses, schools and public facilities to a dynamic community Intranet.

Policies:

- 1) Incentives shall be provided to developers of new residential areas to provide built-in communications infrastructure.
- 2) Local school districts should be supported in their efforts to provide connections to the Intra- and Internet.
- 3) Informational kiosks, with links to City departments, library resources, local events and local businesses should be placed in prominent public facilities and activity centers.
- 4) "Smart" home design, equipped with sensors for efficient heating and cooling, supports "green building" concepts of energy efficiency and should be encouraged by the City when approving new development.
- 5) Contemporary and forward looking communications and computer support systems, including both "wired" (fiber optics) and wireless modes, should be promoted.
- 6) Use the City's evolving "Intranet" to facilitate participation in interactive neighborhood and Town Hall meetings.

Actions:

- 1) Adopt a five-year communications technology plan incorporating the needs of residents, business and public agencies.
- 2) Design and implement a telecommunications incentive plan for project review of new development.
- 3) Prepare a Citywide communications strategy to include initiatives for wired and wireless systems to provide leading edge communications access to residents and businesses.



Chapter 9

Open Space & Conservation Element





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Chapter 9. Open Space & Conservation Element

INTRODUCTION

As the city continues to evolve from an agricultural and industrial base to a modern bedroom community with a stable and varied employment base, the pressure to convert the remaining natural and disturbed open land to a variety of urbanized uses will increase. Without proper guidance and sound management practices, the process of urbanization could eliminate or harm natural land and water resources that provide important ecological, scenic, and other environmental values that would be difficult, if not impossible, to replace. To meet the growing need for outdoor recreation, it will be important to plan for conservation and use of 'built' open spaces that can or do provide recreational opportunities, including parks, public utility corridors, flood control channels, and trail networks. There will also be pressure to redevelop older properties within the City's existing urban pattern, including sites that contain important examples of the historical development of the community. Preservation of its landmark structures and sites provides an important linkage to the City's past, while maintaining the cultural heritage that is an important aspect of the City's identity.

The purpose of this chapter is to define and establish an open space and conservation system, together with conservation and management policies and action programs that will preserve the highest priority resources, while balancing the land needs of an ever-expanding population. Successful achievement of this goal will thus enhance the quality of life for the citizens of Fontana.

Adoption of a comprehensive open space plan is required before the City may adopt zoning regulations to restrict land uses within the open space framework, and to ensure that such zoning standards are consistent with the open space plan. Furthermore, acquisition or disposition of open space lands must be consistent with the adopted open space plan.



Scope

This element addresses the conservation, utilization and development of natural and cultural resources and a variety of open space uses, and satisfies the statutory requirements of Chapter 3, Articles 3 and 5, of the California Government Code with respect to the contents of both an Open Space Element and a Conservation Element. It has been prepared as a combined element and is hereinafter referred to as the Open Space/Conservation Element, or OS/C Element.

Specifically, this element describes the natural, undeveloped but disturbed, and 'built' open spaces found throughout the planning area, identifies areas where natural hazards occur, defines the land and water resources that warrant conservation or other protection, and sets forth the City's goals, policies and action programs for long-term management of an integrated open space network.

The open space and conservation policies set forth in this element are closely linked to and either directly or indirectly affect several other general plan elements, including Land Use, Parks and Recreation, Safety and Community Design. Where appropriate, references to specific sections within those other elements are noted, particularly where additional details and more background information are presented in the linked element.

Within the Land Use Element, for example, there are three types of open space or conservation designations that are consistent with the policies defined within this C/OS Element. These include:

- ◆ **Open Space including publicly-owned land on steep slopes of the foothills** in the northern and southern periphery of the planning area, and conservation or specific open space management strategies, are designated as Open Space. Land uses are restricted to quarries, flood control facilities, ground water recharge basins, and agriculture.
- ◆ **Recreation Facilities** including local and regional parks and any other recreational facility operated by a public or quasi-public agency.
- ◆ **Public Utility Corridors** where there are existing easements for public utilities.

The Parks and Recreation Element contains additional information concerning the existing and future parks, trails, and other public outdoor recreation resources within the planning area, including the planning standards that will guide the location, size and level of improvements for those resources.

A range of natural hazards are described in detail within the Safety Element, including their location within the planning area, history of



occurrence, the nature, magnitude and potential level of damage associated with each kind of hazard, and specific strategies to limit exposure to these hazards, and to minimize potential consequences to people, property and various critical and essential facilities.

Through establishment of an open space framework, this Element supports the overall community design themes, for example, by providing open space buffers around and linkages through developed areas. This provides visual relief from the intensity of urban living, as well as passive and active recreational opportunities within a convenient distance of local residents.

ACHIEVING THE VISION

During the general plan visioning process, several themes were identified with respect to conservation and open space values, including:

- Conservation of the open space character of the northern and southern foothills
- Expansion and linkage of recreational and visual open space throughout the developed community
- Preservation of the City's historical buildings and neighborhoods
- Creation of safe and attractive neighborhoods

This Open Space/Conservation Element addresses all of these community values, and a variety of regulatory mandates falling under the City's local government authority to implement. Examples of such mandates include:

- Conservation of endangered species and habitat
- Preservation of cultural and historic resources
- Protection of water resources
- Avoidance and mitigation of natural hazards
- Consideration of agricultural and mineral resources in land use planning decisions

Through sound conservation and management strategies, this plan provides an open space and conservation framework that will enhance the quality of life for existing and future city residents, visitors and businesses.



PLAN COMPONENTS

This section describes the range of natural and cultural resources, natural hazards, and open space uses included in the Open Space/Conservation Element.

Cultural Resources

Cultural resources included in this element include a variety of remnants or complete, intact examples of human settlement in the planning area, including the prehistoric or archaeologic era, the historical era, and contemporary culture. The **prehistoric era** involved occupation by semi-nomadic people who subsisted by hunting and gathering. The **historic era** spans hundreds of years, from the time of Spanish occupation, to the beginnings of what is now known as Fontana. **Contemporary cultural** resources include a range of unique sites and structures that have special meaning for Fontana residents, such as the old Kaiser Steel Plant site, eucalyptus tree rows, the Almenia Underpass on Foothill Boulevard, etc.

Agricultural Resources

Citrus orchards, vineyards livestock, and poultry farming have been the principal forms of agriculture found in Fontana. While prominent in the City's past, these agricultural practices have declined in response to population growth and land development pressures, and are no longer a significant element of the local economy. Remaining, undeveloped land considered suitable for farming purposes is planned for a variety of urbanized uses, including residential, commercial and industrial development. Given the minor level of investment in existing agricultural operations, limited supply of suitable farmland and the City's preference for accommodation of population growth and economic development, agricultural resources are not included as a component of the proposed open space and conservation plan.

Biotic Resources

While there are many forms of plants and wildlife that occur in this area, the focus of this element is on native species that have been reduced because of encroaching urbanization and competition with non-native and exotic species which out-compete the native species for the limited water and food base. This element discusses the natural habitats and sensitive species occurring in the San Gabriel foothills and the Jurupa Hills, along with other sensitive biotic resources that provide important ecological values. Given the dry climate and mostly flat valley topography, there are very few aquatic resources in the planning area.



The few intermittent streams that do occur in the San Gabriel foothills are described in Appendix D, Biological Resources Survey Data.

Mineral Resources

Mineral resources include any form of natural rock materials that have commercial value. In the planning area, the most significant mineral resource consists of sand and gravel deposits in the alluvial fan that extends southward from the base of the San Gabriel foothills. Sand and gravel aggregates are essential ingredients in construction materials such as concrete, plaster and mortar. Substantial sand and gravel deposits are also found outside of the planning area, within the Lytle Creek alluvial wash. There are no known deposits of precious gemstones, ores, or unique or rare minerals in the planning area.

There are no active sand and gravel mining operations in the City limits, and there is one active operation in the Sphere of Influence, south of the Fontana Speedway in an industrial area. There are no pending proposals to establish any new surface mining operations within the planning area, and it is likely that any such proposals would be met with strong opposition, due to anticipated conflicts with existing land use plans and established land use patterns. Given these considerations, conservation of mineral resource lands will not be included in the proposed open space and conservation plan.

Natural Hazards

Natural hazards included in this element involve earthquake faults and traces of faults, areas of easily liquefiable soils during seismic ground shaking, flood plains, flammable vegetation-covered hillsides in or adjacent to development, steep topography susceptible to landslides, soils slips debris flows and rock falls. These areas require development restrictions or special management to avoid and/or minimize exposure of people, homes, businesses, schools, hospitals, utility lines, etc. to the dangers associated with these hazards. Natural and other hazards affecting the planning area are addressed in much greater detail in the Safety Element, and are not included in the proposed open space and conservation plan.



Open Space

Open space land is defined in Section 65660 (b) of the California Government Code as "...any parcel or area of land or water which is essentially unimproved and devoted to an open space use...and which is designated as such on a local, regional or state open space plan." Within the Fontana planning area, lands that fit this definition include:

- Plant and animal habitat, areas maintained for ecologic and other scientific study purposes; and streams and stream banks
- Land used for the managed production of resources, including farmland and other agricultural uses, mineral resource deposits, and ground water recharge
- Outdoor recreation areas, including areas of outstanding scenic, historic and cultural value; land currently used for or particularly suited for parks and recreation; and linkages between important recreation areas, including utility easements and trails
- Open space for public health and safety, including earthquake fault zones, unstable soil areas, flood plains, steep slopes, areas prone to wild land fire hazards; and areas required for water storage and water quality protection

The Fontana planning area encompasses natural, recreational, mixed-use, landscaped and undefined open spaces. Natural open spaces are limited to undeveloped land retaining natural vegetation that has been unaltered by human activities (San Gabriel foothills and Jurupa Hills). These areas support natural plant communities and a range of sensitive plants and animal species, and may contain a variety of natural hazards, such as highly flammable vegetation, steep and unstable slopes, and periodic flooding.

Recreational open spaces are mainly developed parks where a variety of athletic and passive recreational activities occur. They also include passive recreational spaces and trails within a natural setting, such as the undeveloped portions of the Martin-Tudor-Jurupa Hills Regional Park.

Mixed-use open spaces have a primary purpose other than recreation, but also provide a wide range of recreational and open space uses. For example, flood control channels, power, water and natural gas transmission corridors, quarries, can each be part of or a linkage to a recreational trail system. Other examples include an open space managed for its natural resource value, such as a ground water recharge basin, where public recreation uses are also allowed, or a quarry site that has been partially or fully reclaimed for public recreation or other open space uses.



Landscaped open spaces in the planning area are the private and public 'green belts' and golf courses found in the more recently developed master planned communities, such as Sierra Lakes.

Undefined open spaces include vacant land beyond the existing urban limits that is not occupied with any structures, but which has been altered from its natural state, usually by past agricultural activities. Vacant lots in infill locations are not included in this element, unless they have been identified by the City for future park use.

Outdoor Recreation

Developed and passive parks, as well as linear trail systems along flood control channels and utility corridors, and any other open area under public ownership and available for recreation uses are included within the OS/C Element because of their important open space and recreation values. Parks and other recreation resources to meet the needs of existing and future residents are addressed in detail in the Parks, Recreation and Trails Element.

Water Resources

This component of the open space and conservation plan includes groundwater recharge basins and other water storage facilities, as well as major water transmission and treatment facilities found in the planning area. The City obtains its water supply from three water service agencies and does not control any of the water sources, or any of the supply, storage and distribution facilities. Information concerning the three agencies, their water supply sources and current and projected future water demand for the respective service areas are also discussed in the Existing Conditions section of this Element. A reliable and safe drinking water supply is essential for sustaining the City's growth and for maintaining the high quality of life envisioned by this general plan. Since a majority of the City's water supply is from local ground water sources, protection of those sources from pollution is critical to the water resource management program. Urban runoff from streets, rooftops, parking lots, industrial storage yards, landscaped areas, lawns, drainage and flood control channels, etc. has become the main source of water pollution affecting the region's ground water supplies. This issue and the City's current water quality program are discussed in the Existing Conditions section of this Element.

Open Space and Conservation Framework

Based on an evaluation of the natural and cultural resources that occur in the planning area, and in consideration of the broader land use



policies that are described in the Land Use Element, an open space and conservation framework has been defined, as shown in Figure 9-1. This framework identifies those open areas with the highest priority for permanent conservation and management for various open space, natural resource protection, hazard avoidance, and recreation purposes.

EXISTING CONDITIONS

Water Resources

A reliable water supply is essential for the survival and sustainability of any community. As the city grows, its demand for both potable and non-potable water will increase, and in this arid climate, providing sufficient water supply to satisfy the increased water demand is becoming more difficult every year. Efficient use, protection and conservation of water resources are high priorities in the Open Space/Conservation Element.

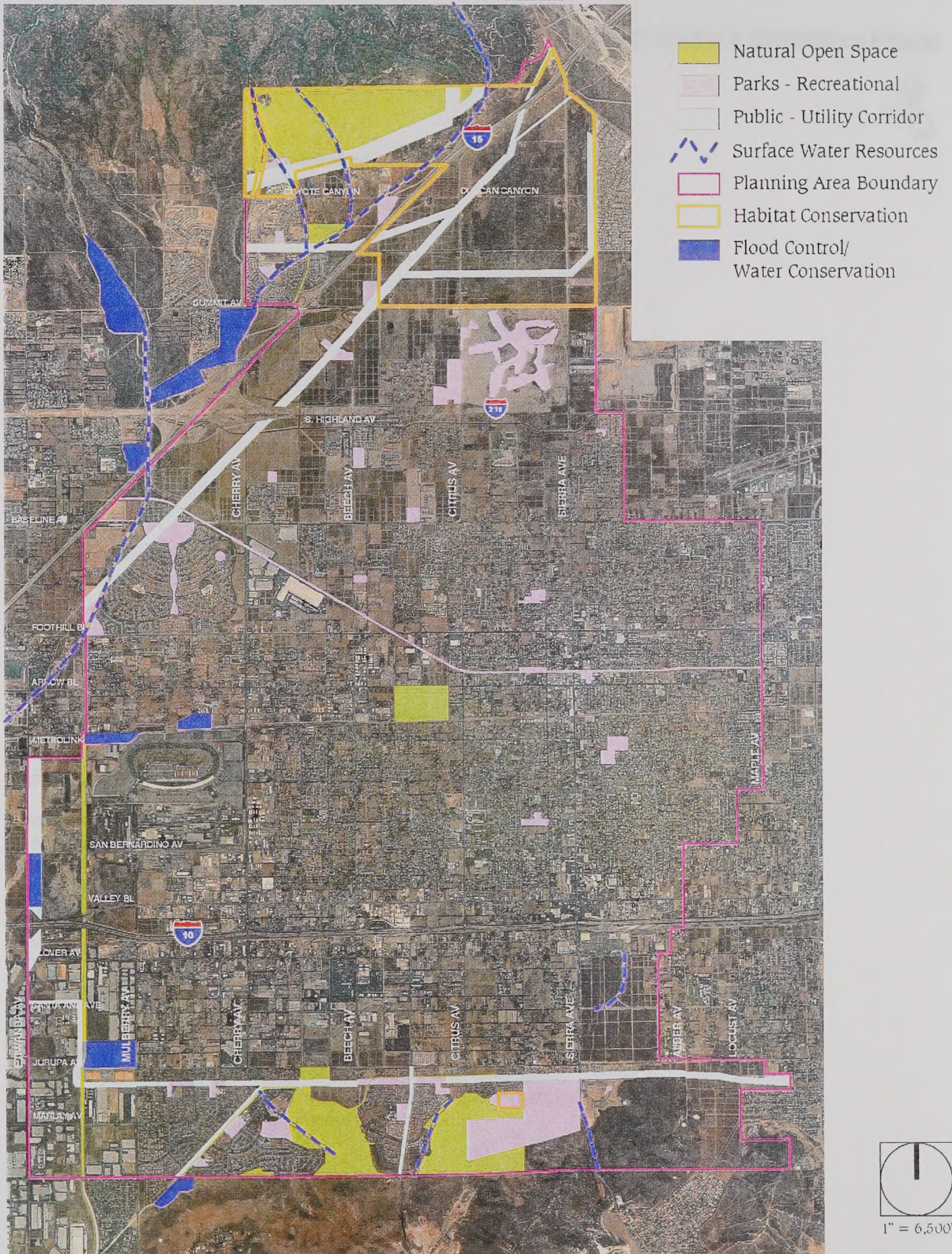
Local and Regional Water Supply Sources

Fontana is within the eastern/upper portion of the Chino Ground Water Basin, one of the largest groundwater basins in southern California. With an estimated supply of five million acre-feet throughout the basin, and roughly 1,000,000 acre feet of unused storage capacity, this basin is an integral part of the regional and statewide water supply system.

The Santa Ana River provides the primary drainage functions for the Chino Basin, flowing 69 miles across a watershed that originates in the San Bernardino Mountains and ultimately flows to the Pacific Ocean.

There is limited surface water runoff within the planning area, primarily from canyon drainages in the northern sphere area, and from surface drainages flowing north from the Jurupa Hills, in the southern edge of the planning area. Surface flows from the northern canyons are intercepted by flood control channels, which flow south and ultimately discharge into the Santa Ana River system. Runoff from the southern drainages are also by local storm drainage systems, and conveyed to large channels that ultimately discharge to the Santa Ana River. Given the capture of the surface drainage flows by local and regional drainage facilities, surface water runoff is an insignificant water supply source within the planning area.

Open Space and Conservation Framework



- 1. Eastern Hemisphere
- 2. Western Hemisphere
- 3. Northern Hemisphere
- 4. Southern Hemisphere
- 5. Equator
- 6. Tropic of Cancer
- 7. Tropic of Capricorn
- 8. Arctic Circle
- 9. Antarctic Circle





There are a number of flood control/ground water recharge basins found within and adjacent to the planning area, as shown on Figure 9-1, *Open Space and Conservation Framework*. These are owned and maintained by other governmental agencies such as the San Bernardino County Flood Control District. These basins are an important component of the overall system of water supply. They provide storage for locally produced ground water and could also provide storage for recycled water when recycled water treatment and distribution facilities are developed and expanded throughout this area.

Local Water Service Agencies

The Inland Empire Utilities Agency (IEUA) distributes water, provides industrial/municipal wastewater collection and treatment services, and other related utility services throughout the Chino Basin. Its service area covers a 242 square mile area in the southwestern portion of San Bernardino County.

IEUA serves the cities of Chino, Fontana, Chino Hills, Montclair, Ontario, Rancho Cucamonga, and Upland, as well unincorporated territory within San Bernardino County.

Fontana Water Company (FWC), a division of the San Gabriel Valley Water Company and a member agency of IEUA, serves most of the planning area, as shown on Figure 9-2.

The Cucamonga County Water District (CCWD), a member of IEUA, provides service to the Heritage community, in the area bordered by Baseline Avenue, Cherry Avenue Foothill Boulevard and East Avenue.

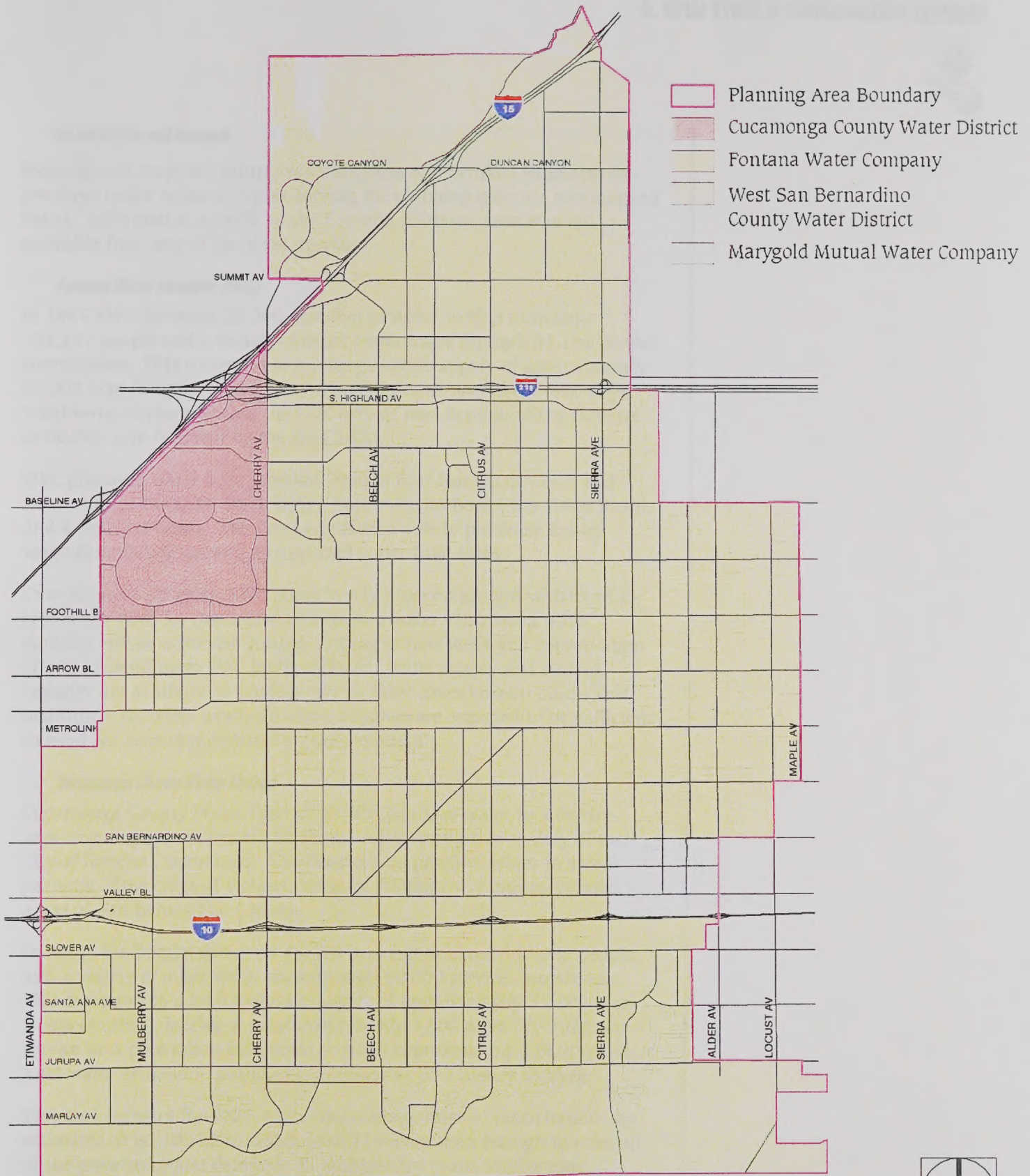
West San Bernardino County Water District (WSBCWD) provides service to two mostly undeveloped areas, one in the northern periphery along both sides of I-15, extending south roughly to Summit Avenue, and the other in the southeastern corner of the planning area. WSBCWD is currently not a member agency of IEUA.

Two other water agencies serve small portions of the planning area. The Crawford Canyon Water District provides water service to less than 20 connections in the northern part of the planning area, including some residential and some agricultural users. The Marygold Mutual Water Company provides potable water service to approximately 300 residential and commercial connections in the fully urbanized area bordered by Sierra Avenue on the west, Alder Avenue on the east, San Bernardino Avenue on the north, and the I-10 Freeway on the south.



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Water Service Districts



1" = 6,500'





Water Supply and Demand

Existing and projected future water supplies and demand estimates for the three major water agencies serving the planning area are summarized below. Information specific to the Fontana planning area was not available from any of the three agencies.

Fontana Water Company (FWC)

In 1999 FWC delivered 38,390 acre-feet of water to approximately 121,247 people and a variety of other water users through 34,150 service connections. This compares to a total available supply of approximately 92,003 acre-feet/year (af/yr), leaving a surplus of roughly 53,613 af/yr. Total water demand within the FWC service area is projected to increase to 60,767 acre-feet/year by the year 2020.

FWC produces water from seasonal stream flow from Lytle Creek and from wells in the Lytle Creek Basin, Colton-Rialto Basin, the Chino Basin, and a separate basin. The Company is also able to purchase treated water from CCWD, as well as imported water from IEUA.

Over the next 20 years, FWC plans to rely more on ground water and to reduce the need for purchased or imported water. Increased water supplies will be achieved through drilling of new wells and conservation efforts. According to FWC staff, sufficient water supply and system capacity are available to produce two to three times current production quantities; therefore available water supplies are expected to be sufficient to meet the projected demand for the year 2020.

Cucamonga County Water District

Cucamonga County Water District (CCWD) provides water to a service area covering approximately 52 square miles, comprised mainly of the City of Rancho Cucamonga. The District also provides water to small portions of the cities of Upland, Ontario, Fontana and unincorporated areas of San Bernardino County.

In 2000, the District delivered 48,000 acre feet to about 140,000 people and a variety of other water uses through 40,000 service connections. This compares to a total available supply of approximately 51,800 acre-feet/year (af/yr), leaving a surplus of roughly 3,800 af/yr. By 2020, the service area population is forecast to reach approximately 214,000 and total water demand is projected to increase to 70,310 acre feet/year.

Projected supplies for 2020, assuming average rates of precipitation, are estimated at 80,400 af/yr, which would be more than enough to meet all of the projected water demand. In multiple dry years, total water supplies would be reduced; however total demand would also be reduced through a variety of conservation measures.



CCWD obtains water from several sources, including groundwater from the Cucamonga Basin and the Chino Basin, imported State Project water, and local surface and sub-surface flows from four local canyon watersheds. In 2000, over half of the District's water supplies were from purchases of imported water. Over the next 20 years, the District plans to rely more on ground water and to reduce the need for purchase of imported water. Increased water supplies will be achieved through drilling of new wells and conservation efforts.

West San Bernardino County Water District

West San Bernardino County Water District (WSBCWD) provides water service to a 31.7 square mile area, located in portions of southwestern San Bernardino County and northern Riverside County. Within the Fontana Planning Area, WSBCWD provides service to two mostly undeveloped areas, one in the northern periphery along both sides of I-15, extending south roughly to Summit Avenue, and the other in the southeastern corner of the planning area.

In the year 2000, the District supplied approximately 18.3 million gallons a day to a total service area population of approximately 52,000, via 16,005 service connections. Approximately 80% of the water demand was for residential uses. The District projects continued growth in water demand, with a forecast of more than 30,000 connections in the year 2020 to deliver nearly 28 million gallons per day.

Water sources include Lytle Creek surface flows, ground water from the Lytle, Rialto, Bunker Hill, North Riverside and Chino basins, and imported water through the State Water Project. The District maintains approximately 20 wells and one water filtration facility, with a total combined capacity of approximately 36.5 million gallons/day (mgd).

In 2001, the District had 59.75 million gallons of reservoir storage capacity, with plans to construct two more reservoirs by 2004, to add nine million gallons of additional storage. They plan to drill additional wells to expand their water supplies, commensurate with increasing water demand. The District will continue to rely primarily on Lytle Creek surface flows and local groundwater to maintain its water supplies and meet increasing water demand.

Water Source Reliability

The imported water supplies available to Southern California are increasingly uncertain; therefore, the development and conservation of local, reliable water supplies and expanded water conservation programs are of critical importance to the future of the Fontana Planning area and the entire Chino Basin.



Section 10631 of the State Water Code requires water agencies to address the reliability of their water supplies with respect to vulnerabilities involving seasonal or climatic variations, as well as other legal, environmental, and water quality factors. Drought planning occurs on a regional basis, by the MWD, and locally, by the CCWD. MWD's Water Surplus and Drought Management Plan addresses both surplus and shortage contingencies, which is adjusted annually in accordance with the levels of water storage and supplies available.

Water source reliability considerations for the three major water purveyors are summarized below.

Fontana Water Company

FWC's has indicated that there have not been regular or frequent water supply deficiencies in recent years, and that they will not need to develop new source capacity to meet current or projected demands, for "normal" precipitation periods or during periods of drought.

Cucamonga County Water District

CCD indicates the primary water reliability concerns involve water quality problems, future droughts and the potential for a catastrophic event that interrupts water service. CCWD will continue to develop additional groundwater and recycled water supplies, along with water conservation measures, to reduce the need for imported water supplies during dry year periods.

West San Bernardino County Water District

Key water source reliability considerations include:

- Extreme fluctuations in Lytle Basin groundwater levels
- Rialto Basin is affected by a perchlorate contamination plume that has reduced its annual water supply potential by more than one-half. This will continue until there is an economical and practical treatment process available for safely removing perchlorate from drinking water
- State Water Project water is considered unreliable, because it is not expected to be available during extended drought periods
- Riverside and Chino Basins do not appear to be affected by drought cycles
- Bunker Hill basin resources are substantial, and this source is expected to provide a reliable, long-term supply source, even during drought periods.

The District plans to install two additional wells in the Bunker Hill Basin as a back-up water supply for its groundwater and surface flow in the Lytle Basin. This would provide the ability to deliver up to an additional



5,000 acre-feet per year. Additional water storage capacity is also planned.

Water Shortage Contingency Plans

Section 10632 of the California Water Code also mandates all urban water supplies prepare a water shortage contingency plan, to identify actions to be taken to prepare for and implement during a catastrophic interruption of water supplies as those that might occur as a result of a regional power outage, earthquake or other disaster. The contingency plan may include a variety of measures to reduce water consumption through specified water use practices, rationing of water supplies, and penalties for excessive water use. Each of Fontana's water agencies has adopted water shortage contingency plans, as discussed below.

Fontana Water Company

The FWC Contingency Plan is designed to provide at a minimum 50 percent of normal supply during a severe or extended water shortage. A four-stage action program is triggered by various levels of reduction in available water supplies. When such supply reductions occur, FWC may implement any one or more of several water conservation measures, including limits on consumption by nonessential or unauthorized water users, voluntary and mandatory supply rationing, and application of penalties for non-compliance with the conservation program.

West San Bernardino County Water District

The District has adopted a Water Conservation Plan and a Water Shortage Contingency Plan, which includes a four-stage rationing plan during a declared water shortage, similar to the program described for FWC.

Cucamonga County Water District

CCWD has developed a three-stage rationing plan to implement during declared water shortages. This includes voluntary rationing, increasing commodity rates, and due process measures to allow for relief from provisions of the plan. When available water supplies drop to less than 90% of water demand, an emergency will be declared triggering the three-stage rationing plan.

Watershed Protection

Since local groundwater is currently and will continue to be the primary water supply source for the planning area, prevention of water pollution is essential in protecting and conserving this critical water resource. Water pollution stems from both point and non-point sources. Point sources discharge wastewater directly into a receiving water at a discrete point (usually at the end of a pipe). Typical point sources include wastewater treatment plants and industrial facilities. Non-point sources,



on the other hand, are diffuse in origin and variable in quality. These include urban nuisance flows and stormwater runoff.

As noted earlier, the Fontana planning area is in the Chino Ground Water Basin, which is fed by runoff from various tributaries throughout the upper Santa Ana River watershed. Water pollution controls for the Santa Ana River watershed are administered by the Santa Ana Regional Water Quality Control Board (SARWQCB), through a variety of means, in accordance with its Basin Plan. The principal method is through waste discharge requirements, which regulate the quality of wastewaters discharged, and in other ways that control the discharge of wastes that could impact surface and ground water quality. Regulatory tools enforced by SARWQCB include National Pollutant Discharge Elimination System (NPDES) permits, Waste Discharge Requirements, Water Reclamation Requirements, Water Quality Certification, and Waste Discharge Prohibitions. The regulations that most directly affect the City of Fontana are the NPDES permit programs pertaining to discharges from the City's municipal storm drainage system, as discussed below. The other regulatory tools are, for the most part, administered directly by SARWQCB, whereby individual dischargers are responsible for compliance with the applicable waste discharge permitting requirements. Private homeowners who need to dispose of wastewater through an individual septic tank system must obtain permits from the County of San Bernardino, Environmental Health Services Division.

Urban Runoff Management

Urban runoff from the planning area flows into a network of open channels, as well as along streets, into underground drainage systems and over undeveloped land. A substantial amount of this runoff flows into regional flood control channels, which eventually discharge into the Santa Ana River, the major watershed in the region, and one of the largest sources of ground water supplies in southern California. Urban runoff commonly contains a variety of water pollutants, including elevated levels of pathogens, sediment, trash, fertilizers, pesticides, heavy metals, and petroleum products. Storm water can carry these pollutants to the eventual receiving waters, i.e. rivers, streams, lakes, bays and the ocean. This polluted runoff can result in exceeding the water quality standards for the receiving waters, as established by the Santa Ana Regional Water Quality Control Board (SARWQCB) in their Basin Plan.

A significant amount of the urban surface runoff that occurs in the planning area is intercepted by the City's storm drainage system, which flows into San Bernardino County Flood Control facilities, mainly the San Sevaine and Declez Channels. These channels carry flows directly into the Santa Ana River. Because the discharges from the municipal storm drainage system can pollute the river, they are regulated by the SARWQCB.



Along with the County of San Bernardino Flood Control District, the County of San Bernardino and the other incorporated cities within San Bernardino County, the City of Fontana is a co-permittee for the Area-Wide Urban Storm Water Permit, issued by the SARWQCB, pursuant to the National Pollutant Discharge Elimination System program under Section 402(p) of the federal Clean Water Act. This permit is referred to as NPDES No. CAS618036/Order No. R8-2002-0012. This order (permit) regulates urban storm water runoff from areas under the jurisdiction of the permittees, including storm water runoff, snowmelt runoff, and surface runoff and drainage that flow into the Santa Ana River and its tributaries. It applies to discharges from municipal separate storm sewer systems (MS4), as well as other designated storm water discharges considered significant sources of water pollution. stormwater drainage system flows into

To implement its obligations under the Area Wide Urban Storm Water Permit, the City has adopted a Municipal Storm Water Management Plan (MSWMP), which consists of a variety of measures, including prohibition or regulation of specific types of discharges, inspections, avoidance of sewage spills, public education, controls on new development and redevelopment, site maintenance practices, and construction site management practices.

All new construction projects involving a ground disturbance of at least one acre in total area must comply with the terms of the programmatic General Construction Permit issued by the SARWQCB. This applies to private projects as well as projects undertaken by the City or other government entities. Specific construction site maintenance measures, spill prevention and response procedures, erosion control measures, etc. are required to be specified on a Storm Water Pollution Prevention Plan that must be approved prior to the issuance of a grading permit.

Prior to the issuance of building permits, new development and redevelopment projects subject to the City's MSWMP restrictions are also required to submit and obtain approval of a Storm Water Quality Management Plan (SWQMP) that specifies the water pollution control Best Management Practices (BMPs) to be incorporated into the project design. Examples of common structural BMPs include control of impervious runoff, common area efficient irrigation and runoff minimization. Non-structural BMPs include educational materials, activity restrictions and common area catch basin inspections. The City provides a list of approved structural and non-structural BMPs to development applicants, to assist in the preparation of their SWQMPs

The City regularly monitors its storm drain system to detect illegal or unwarranted discharges into the City stormwater drainage system. Monitoring is accomplished by water and soil sampling and spot



inspections. Fines may be imposed on businesses or individuals who discharge illegal substances into the storm drain system.

Ground Water Pollution

Ground water quality in the planning area is generally good, with the lowest levels of total dissolved solids (TDS) of any of the groundwater basins in the Upper Santa Ana watershed.

Perchlorates, a toxic substance commonly used in a variety of manufacturing processes, have been detected in well fields maintained by all three of the water districts that provide water service to Fontana; the contaminated wells are not in use. Efforts are underway by the Santa Ana Regional Water Quality Control Board, together with the impacted water districts and a number of cooperating private entities, to investigate the extent of the ground water contamination and to obtain funding for the expensive treatment system required to remove perchlorate from the well water. Presently, there are no such treatment facilities for any of the contaminated wells serving the Fontana planning areas. The total perchlorate impact to the viable water supplies maintained by the three districts has not been determined; however, as long as the contaminated wells remain off-line, the available supply is reduced.

Water Conservation

Efficient allocation of water resources, avoidance of water waste (e.g. excess irrigation runoff), using recycled water for irrigation, water conserving technologies and site planning, where possible, will be increasingly important elements of a water conservation strategy.

As a key element of a regional water conservation strategy, IEUA, in cooperation with its member water agencies, is developing a recycled water master plan to expand the supply of treated wastewater that can be reused as irrigation water and to recharge portions of the ground water basin, to help reduce stresses during droughts. The City of Fontana currently has entitlements to 11 million gallons per day (mgd) of recycled water capacity, through the IEUA, with projected annual capacity increases of 0.5 mgd, commensurate with continuing growth. Along with its entitlement to IEUA-produced recycled water, the City has intervention rights in the Chino Basin and may sell its reclaimed water to other agencies, for example, to be used in ground water recharge programs. Presently, there are no reclaimed water supply or distribution facilities in the Fontana planning area; however, the City is embarking on a master planning effort to lay the groundwork for building a customer base and the facilities to deliver reclaimed water for direct application in irrigation systems, and also to supplement local ground water recharge.



In 1992, pursuant to Assembly Bill 325, the City adopted Ordinance 1087, establishing water conservation standards to be applied to commercial and industrial development, focusing on the use of xeric (drought tolerant/low water usage) plant materials. Residential uses were exempted due to the difficulty in enforcing such restrictions on private lots. The City's parks were also exempted, since most parks require turf grass to support a variety of active outdoor recreation programs.

Water Supply Planning – Regulatory Framework

Key legislative mandates focusing on the linkage between water supply and land use planning are summarized below.

Urban Water Management Plans

Since 1984, public water purveyors with 3,000 or more service connections, or that deliver at least 3,000 acre-feet of potable water on an annual basis, have been required to prepare an Urban Water Management Plan (UWMP). An UWMP provides a summary of the historical and projected water uses and demands within the water supplier's service area, identifies the existing and future water supply sources it relies upon, describes the purveyor's demand management programs, and sets forth a strategy for meeting water demands in its service area during normal years, dry years, and multiple dry years. All three of Fontana's water purveyors, as well as the IEUA, have recently adopted an UWMP.

SB 901

Senate Bill 901, signed into law in 1995, requires cities and counties to give greater consideration to water supply and demand issues when deciding whether to approve large development projects. If a project meets the criteria set forth in the legislation, the city or county responsible for the EIR must refer the project to the water purveyor who will supply water for the project. The water purveyor, in turn, must prepare a water supply assessment, indicating whether the purveyor can satisfy the water demands created by the proposed project. Specifically, this assessment must determine whether the total projected water supplies forecasted in its UWMP during normal, single-dry, and multiple-dry water years are sufficient to meet the project's water demands. The city or county must include the water supply assessment information in the EIR, and if the results indicate there will be insufficient water supplies, this determination must be included in the findings as required by CEQA. The city or county may still approve the project, if it has other information that indicates that sufficient water supplies will be available to support the project demand.

**SB 610 and SB 221**

On January 1, 2001, Senate Bill 610 (SB 610) became effective and strengthened the water supply assessment requirements under SB 901. The new provisions included expanding the definition of “projects” that require a water supply assessment, and increasing the required content with respect to ground water supplies and the water purveyors future projects and programs that will increase the available water supplies. SB 610 also authorized the city or county to compel the preparation of a water supply assessment through the courts. If the city or county cannot identify a public water system that may supply water to the project, the city or county must prepare the water supply assessment.

Also enacted on January 1, 2001, Senate Bill 221 (SB 221) requires verification of adequate water supplies for any residential development project of 500 or more units, or which will increase the number of service connections by more than 10 percent in a public water system with less than 5,000 connections. Verification by the water supplier or the city or county must be formally approved by the governing body at a public meeting, and the final subdivision map may not be recorded until the verification has been formally adopted. This water verification procedure does not apply to very low or low-income housing projects, or to projects located within an urbanized area. Cities and counties may not approve a development agreement for a residential project with 500 or more dwelling units unless the agreement clearly states that compliance with the verification procedures in SB 221 is required.

Plant and Animal Resources

A Biological Resources Survey Report, one of the technical background reports prepared for this general plan update, provides a detailed list of plant and wildlife species occurring within the City and the City's sphere of influence. Specific issues to be addressed are biotic diversity, plant communities, wildlife, wildlife movement corridors, and legal protective status of sensitive species.

The City is currently developing a Multiple Species Habitat Conservation Plan (MSHCP) for north Fontana to address possible impacts to federally listed species potentially occurring on vacant lands in north Fontana. USFWS, since the last update of the General Plan, has designated Critical Habitat for SBKR and the California Gnatcatcher that includes portions of north Fontana. The MSHCP will include most of the vacant lands north of Summit Avenue, including lands designated as open space within the City's Sphere of Influence north of the Coyote Canyon Specific Plan area. Other conservation efforts will be addressed on a project by project basis.



Regulatory Framework

The Federal Endangered Species Act of 1973 (FESA) defines an endangered species as "any species, which is in danger of extinction throughout all or a significant portion of its range..." Threatened species are defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA, it is unlawful to "take" any listed species. "Take" is defined as follows in Section 3(18) of the Act: "... harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

Section 4(a) of the Endangered Species Act requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened". Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Any project involving a federal agency, federal monies or a federal permit that falls within an area designated as critical habitat requires the project proponent to consult with the USFWS regarding potential impacts to the listed species and conservation measures to offset identified impacts.

The City of Fontana falls within the Designated Critical Habitats of two federally listed species; the San Bernardino kangaroo rat (SBKR) and the California gnatcatcher (CAGN). Portions of Fontana also fall within the Jurupa Recovery Unit for the Delhi sands flower-loving fly (DSF) (USFWS 1997). A Recovery Plan, although not a legally binding document, sets parameters for the successful recovery of a species. In the Delhi Sands Flower-loving Fly Recovery Plan, USFWS has defined four recovery units, one of which, the Jurupa Recovery Unit, occurs in south Fontana. Recovery Units are specific locations, which USFWS would like to preserve to encourage the continued survival and ecological recovery of the species.

Critical habitat for the SBKR and Gnatcatcher, and the Jurupa Recovery Unit for the DSF, are illustrated in Figure 9-4. Areas within Fontana containing Delhi sands (potential habitat for the DSF) that are not developed and are not included in the Recovery Unit are also illustrated.

The Migratory Bird Treaty Act (MBTA) provides protection to all native birds, except for game birds managed by fish and game departments. It is illegal to harm or harass these birds, their parts or nests during nesting season. Non-native birds, e.g. English sparrows, European starlings, rock dove, are not included in this protection. This program is administered by the USFWS.



California Endangered Species Act (CESA) defines an endangered species as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "... a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species."

Jurisdictional Watercourses

The City of Fontana contains at least five areas determined to be "Waters of the U.S.". Discharges of dredge or fill material to such waters are regulated by the United States Army Corps of Engineers (USACE), pursuant to Section 404 of the Clean Water Act (CWA). Activities within or that affect Waters of the U.S. that require some form of federal permit or license are also subject to the Water Quality Certification regulations administered by the Santa Ana Regional Water Quality Control Board, pursuant to Section 401 of the CWA. Riparian resources also occur along these drainages; these are protected by regulations administered by the California Department of Fish and Game, pursuant to Section 1600 et seq. of the California Fish and Game Code. There are three main drainage features flowing from the foothills in the San Gabriel foothills and three small drainages in the south, which flow from the Jurupa hills (see Figure 9-1). Within the developed area in the central portion of the City are two main drainage features, which have been previously modified for flood control measures.

Regional Connectivity/Wildlife Movement Corridor Assessment

Historically, the City provided movement in both a north-south and east-west directions. The land within the City of Fontana property provided a connection between the nearby San Bernardino and San Gabriel Mountains to the Chino Basin, as well as movement along the foothills of these ranges in the northern part of the planning area.

Currently, the City of Fontana is mostly developed, with most of the land converted from open space areas to commercial, industrial, residential, and recreational uses. Wildlife movement on a north-south regional basis has ceased due the development of the valley floor.

Wildlife movement in an east-west orientation along the foothills north of I-15 is still a viable wildlife corridor. Although the Jurupa hills provide habitat for many species of plants and animals, it functions as an ecological island, allowing no significant movement. The remaining



portions of the City are extensively developed and major wildlife movement within the City is not likely to occur.

Plant/Habitat Communities

The City of Fontana contains eight different plant communities that range from disturbed and ornamental plant communities in the developed portions of the City to more diverse, native plant communities, mainly north of Interstate 15 (I-15). A brief summary of each onsite natural community is discussed below. A visual representation of the communities is illustrated in Figure 9-3.

Northern Mixed Chaparral

A mountainside community at an elevation of 1,700 to 6,000 feet, this chaparral community is composed of fire-adapted, broad-leaved shrubs. Dominant plants include manzanita, coast live oak, California lilac, toyon, holly-leaved cherry, and Our Lord's candle. This community occurs in a small area along the City's northern boundary (see Figure 9-3, *Natural Biotic Communities*), which occurs more commonly in the San Bernardino National Forest, just north of the City, at higher elevations and within some of the higher drainages of the Jurupa Hills.

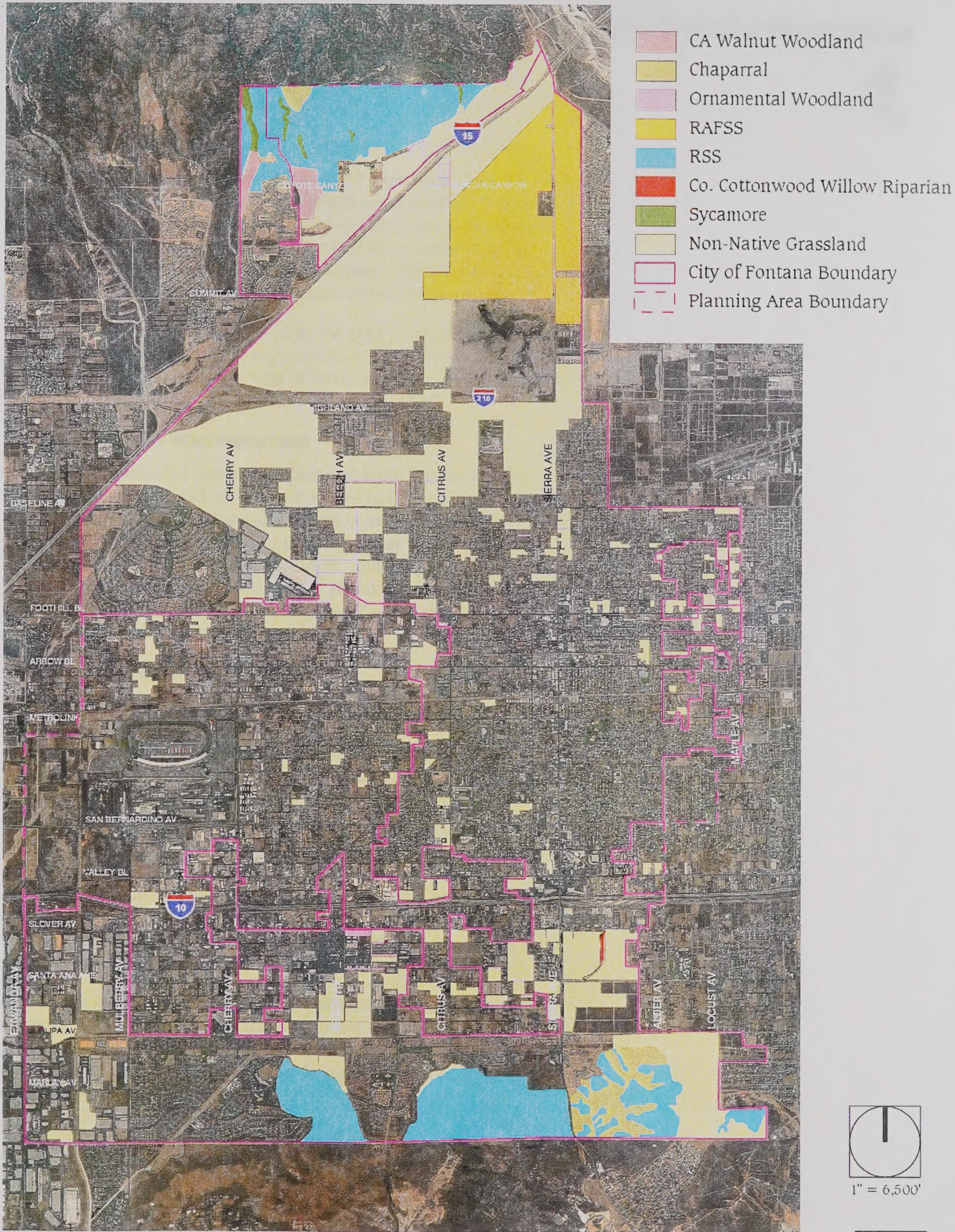
Riversidean Sage Scrub

Riversidean sage scrub (RSS) is the most xeric expression of coastal sage scrub in southern California. It is the driest, most inland expression of the collection of sage scrub or coastal scrub series. This community consists primarily as a semi-arid scrub community of the valley floor, dominated by coastal sage, white sage, black sage, California buckwheat, and California croton. There are a few areas within the City of Fontana with remnant stands of Riversidean sage scrub: in the northern section, particularly north of I-15 and in the Jurupa Mountains (see Figure 9-3, *Natural Biotic Communities*). It gives way to northern mixed chaparral at about 1,700 feet elevation, approximately midway between Alta Loma and Etiwanda.

Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub (RAFSS) is a subtype of the more widely known Riversidean Sage Scrub, and is described as open vegetation adapted to alluvial fans and outwashes. It grows on sandy, rocky alluvia deposited by streams that experience infrequent episodes of flooding at the base of the San Gabriel Mountains. The community is composed of California sagebrush, California buckwheat, yerba santa, yucca, cholla cactus, white sage, and scalebroom. The RAFSS plant communities or habitats found within the City and its sphere of influence are considered a sensitive biological resource by several regulatory and conservation agencies including USFWS, CDFG and CNPS.

Natural Biotic Communities





California Walnut Woodland

The California walnut woodland community consists of California black walnut trees with an understory of alluvial scrub species. The walnut woodland generally appears as scattered walnut trees with an open canopy growing with sycamores. This plant community was once extensive throughout the foothills of Southern California, but is now greatly diminished due to agriculture and urban development.

This plant community is found within the area north of the I-15 at the mouth of Morse and Duncan canyons and at the southern portion of San Sevaine Canyon and also just west of Neely's Corner. California walnut woodlands are considered a sensitive habitat by CDFG.

Southern Cottonwood-Willow Riparian Forest

Tall, open, broadleaved winter-deciduous riparian forests dominated by Fremont cottonwood and several tree willows. Understories usually are shrubby willows. This community occurs in sub-irrigated and frequently overflowed lands along rivers and streams. Other common species include mugwort, mulefat, wild cucumber, and stinging nettle. A single stand of this community is found in the planning area, in the Fontana Business Center in south Fontana, between Tamarind Avenue and Sierra Avenue, just south of Slover Avenue.

Southern Sycamore-Alder Riparian Woodland

This diverse community of riparian species is found along the streams beds of San Sevaine Canyon, Duncan canyon, Morse canyon and various unnamed creeks. These canyons contain the only native trees of the area. Trees commonly seen in the streamside woodland include alder, big-leaved maple, canyon oak, California bay, sycamore, ash, black cottonwood, cottonwood, mulefat and black willow.

Non-native Annual Grasslands

The non-native annual grassland areas are disturbed or graded areas that have revegetated with opportunistic weedy species. These species include wild oat, brome and Mediterranean schismus, as well as some native wildflowers, such as popcorn flower and, fiddleneck.

Non-native grasslands are found in vacant lots throughout the City of Fontana. This habitat is particularly valuable as foraging area, for raptors and other avian species, such as Northern harriers, burrowing owls, horned larks, red-tailed hawks, ferruginous hawks, loggerheaded shrikes and Western tanagers.



Ornamental Woodland

Ornamental woodlands are human created woodlands using non-native trees and shrubs. Common species of trees found within ornamental woodlands throughout the City of Fontana include various species of eucalyptus tree, tamarisk and Peruvian pepper trees. Ornamental woodlands often provide excellent nesting habitat for raptors and other birds. Ornamental woodlands also provide shade, wind protection, erosion control and esthetic value to humans. Several scattered ornamental woodlands and windrows exist throughout the City.

Development/Disturbed

Although most of the land within the City limits supported coastal sage and alluvial communities at one time, much of the land today is either developed or has been extensively modified by human activity sometime in the recent past. Development includes any form of human disturbances, especially in cases of permanent impacts to natural communities. Disturbed areas would include dirt roads, off-highway use, pavement, concrete, buildings and structures, bridges, active agricultural activities, and permanent flood control measures.

Fallow agricultural areas represent a substantial proportion of the undeveloped land in North Fontana. These areas are in various stages of succession and are covered with non-native grasslands, emergent native vegetation and exotics. These areas may provide suitable habitat for the San Bernardino kangaroo rat, a federally endangered species of rodent.

In developed areas, native species have been replaced by landscaping or a variety of annual grasses. The non-native annual grass species found include a variety of bromes, Bermuda grass and the large Johnston grass also occur in the area. Forbs common to the area include: wild turnip, red-stemmed filare, annual bur ragweed and southern suncups.

Several non-native tree clusters and windrows are located within the developed portions of the City, consisting of large blue-green eucalyptus, California pepper, olives and oleander.

Wildlife Species

The vegetation communities and location of the City of Fontana provide habitat for a wide variety of animal species.

A complete list of occurring and potentially occurring species (including scientific names) and their respective habitats can be found in the Biological Resources Survey Report, in Appendix D. This list does not include all species of wildlife that could occur, but does provide a broad range of representative species. The highest concentrations are found in the alluvial fans and streamside woodlands. Although unique species



are not known to occur, there are several populations of lizards with unique genetic forms.

Common birds in the area include the roadrunner, horned lark, scrub jay, plain tit-mouse, verdin, wrentit, Bewick's wren, California thrasher, American goldfinch, Brown California towhee, lesser goldfinch, and song sparrow. Raptors and owls exist in some of the open areas of the City.

Within the City limits, common mammalian species are limited to those that have adapted to or can coexist with humans, such as pocket gophers, California ground squirrels, desert cottontails rabbits, striped skunk, and opossum.

Smaller mammals still persist in the streamside woodland areas within the northern limits of the City of Fontana and within the sphere of influence. Pocket gopher, California pocket mouse, kangaroo rats, various white-footed mice, California vole, black-tail jackrabbit, brush rabbit, and cottontail rabbit are typically found in undisturbed areas containing RAFSS. Moderate size mammals such as Spotted striped skunk, Gray squirrel, opossum, raccoon, bobcat, and gray fox are typically found in the mixed chaparral habitat located in the northern areas of the City's sphere of influence. Very few large mammals, such as black bear, mountain lion, mule deer and bighorn sheep occur within the City limits, but have been observed in the sphere of influence north of the City during biological surveys. Occasional sightings of kit fox, ringtail cat, and badger have been also reported historically.

Sensitive Species

Sensitive Plant Species

Nine sensitive plant species are listed in the CNDDDB as potentially occurring in the vicinity of the City. Although there has been no observation of any of these species, suitable habitat for five of these species occurs within the City boundary; each species is described below.

Plummer's Mariposa Lily

This plant prefers dry, rocky areas in Riversidean Sage Scrub and chaparral. It occurs below 5,000 feet elevation. Suitable habitat is present within the northern portions of the City. There is a moderate potential for it to occur in north Fontana.

Parry's Spineflower

Found on dry, sandy slopes and flats in Riversidean Sage Scrub and chaparral, this plant has a moderate potential to occur within the northern portion of the city limits.



Lemon Lily

This small, rare lily occurs in wet riparian areas on shady edges of streams at elevations of 3,900 to 8,370 feet. Suitable habitat for this species occurs within the foothill portions of the City north of the I-15, within the riparian woodlands. There is a moderate potential for it to occur within this area.

Slender-horned Spineflower

This plant prefers sandy and gravelly soils on alluvial fans and old floodplains; between 500 to 2,000 feet in elevation, within Riversidean Alluvial Fan Sage Scrub habitat. Although the City of Fontana provides some suitable habitat for this species occurs north of Summit Avenue. It has a low potential to occur because of flood control activities within the City have reduced the viability of remaining RAFSS habitat.

Pringle's Monardella

The last observation of this plant is known from a museum specimen from 1904 near the Jurupa Mountains. This plant grows on sandy hills of Riversidean Sage Scrub and has only been known to occur in Riverside and San Bernardino counties. There is a very low possibility that this species may still occur in the Jurupa Mountains.

Sensitive Wildlife Species

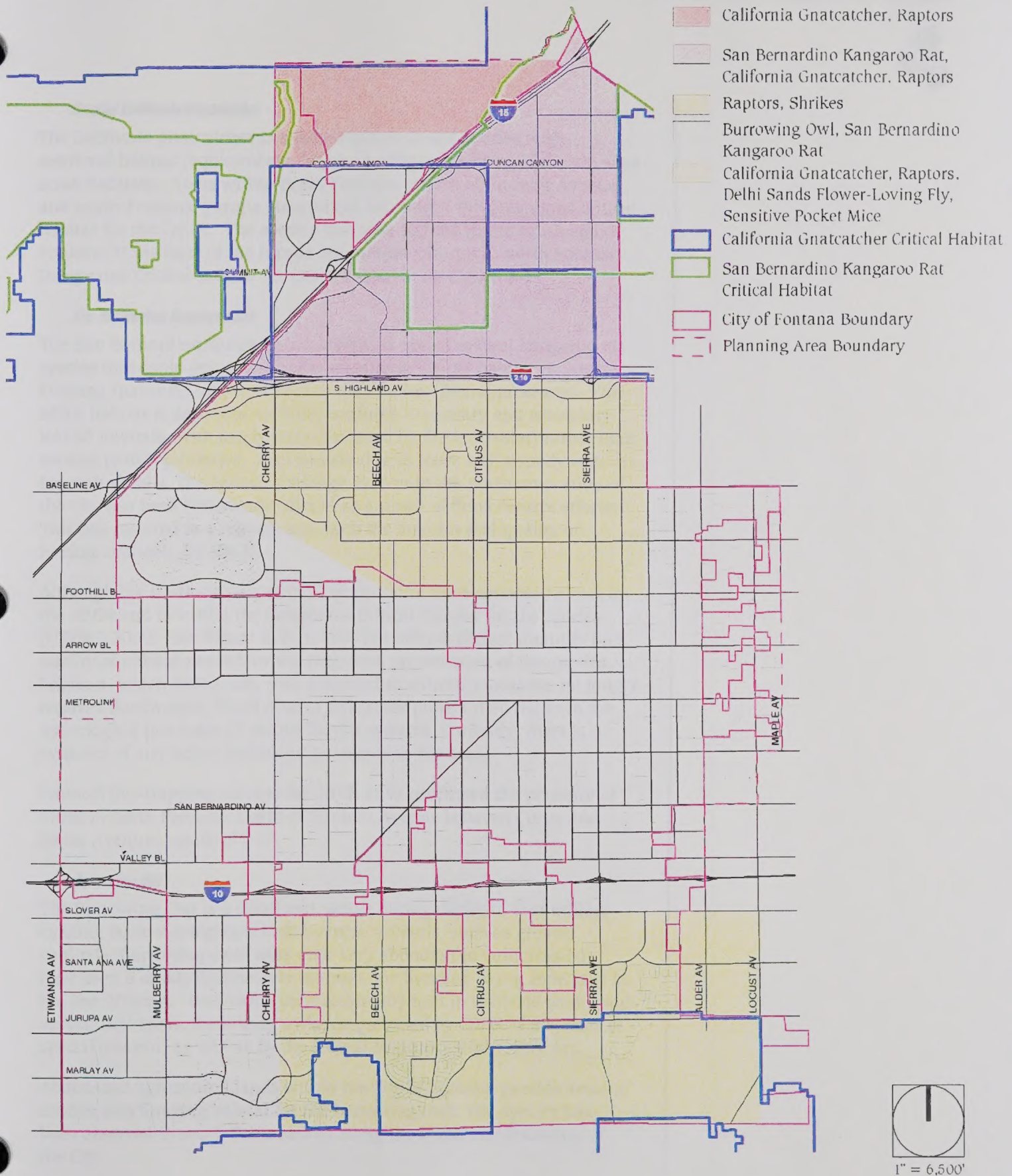
Twenty-two (22) sensitive wildlife species have been identified by the California Natural Diversity Database (CNDDB) as occurring in the vicinity of the City. (There is suitable habitat for 15 of these species within Fontana the and 10 of these species have been observed recently. Figure 9-4 illustrates the distribution of the suitable habitat for the sensitive species that have been observed within the planning area.

Delhi Sands Flower-loving Fly

This relatively large insect occurred historically in an area approximately forty square miles in northwestern Riverside and San Bernardino counties. The habitat for this federally endangered fly is limited to areas containing Delhi fine sand, an aeolian (wind-blown) soil type (see Figure 9-4). Disturbances to the soils, such as agriculture and urban development are the primary causes of the decline of this species.

The City of Fontana falls within the USFWS designated "Jurupa Recovery Unit". This species was observed in 2002, south of Slover Avenue and east of Sierra Avenue, within the Jurupa Recovery Unit.

Potential Habitat for Sensitive Wildlife



1. *Chemical Contaminants*

2. *Physical Contaminants*

3. *Biological Contaminants*

4. *Other Contaminants*

5. *Other Contaminants*

6. *Other Contaminants*

7. *Other Contaminants*

8. *Other Contaminants*

9. *Other Contaminants*

10. *Other Contaminants*

11. *Other Contaminants*

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Coastal California Gnatcatcher

The California gnatcatcher is a federally-threatened species with restricted habitat requirements, being an obligate resident of coastal sage scrub habitats. Areas within north Fontana, (north of Summit Avenue) and south Fontana (Jurupa Mountains) fall within the designated critical habitat for the CAGN. The species has been sighted in the south end of Fontana at the base of the Jurupa Mountains, but not in north Fontana. Designated Critical Habitat for CAGN is shown on Figure 9-4.

San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat (SBKR) is one of several kangaroo rat species that could occur within the remaining RAFSS habitat in north Fontana that is no longer subject to the required fluvial processes. The SBKR habitat is described as being confined to primary and secondary RAFSS habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs. The historic drainage system in the northern portion of the City has been historically altered as a result of flood control efforts. This has resulted in a reduction in both the amount and quality of habitat available for SBKR.

Although the northern part of the City contains some suitable habitat for the SBKR and is within the designated Critical Habitat for the species (USFWS 2002—see Figure 9-4), it does not offer sufficient quantity and quality of habitat needed for the long-term preservation of the species. Fontana, which historically was subjected to alluvial processes, no longer receives floodwaters. Flood control structures protect the area from the hydrological processes of nearby fluvial systems. Currently, there is no evidence of any active hydrologic processes in the area.

Protocol live-trapping surveys for SBKR have confirmed the presence of SBKR in north Fontana, north of Summit Avenue between Citrus and Sierra Avenues, south of I-15.

Burrowing Owl

The Burrowing Owl is a small owl, active during daylight, that utilizes existing burrow complexes built by other animals, such as ground squirrels. Burrowing owls were once very abundant in California but have seen a steady decline over the past one hundred years, especially in the last 20 years. Burrowing owls commonly nest in roadside banks and agricultural areas. Burrowing owls are protected by CDFG as a species of special concern, as well as by the federal Migratory Bird Treaty Act.

Abandoned agricultural lands within the City of Fontana provide areas of nesting and foraging habitat for the burrowing owl. The species has been observed in south Fontana and along the southwest boundary of the City.



Golden Eagle

The Golden eagle is a year-round resident of southern California and prefers open habitats. The northern portion of the planning area provides suitable foraging habitat for golden eagles living in the San Bernardino Mountains. This species is a State Species of Special Concern and is also protected under the Federal Bald Eagle Act. Golden eagles have been observed foraging in the north end of the City, near the I-15.

Cooper's Hawk

Cooper's hawks are often seen in wooded urban areas and native woodland communities. Preferred nesting habitats include oak and riparian woodlands dominated by sycamores and willows. Suitable foraging habitat for this bird can be found throughout Fontana. Cooper's hawks prey on small birds and rodents that live in woodland and occasionally scrub and chaparral communities. This species was observed foraging in the riparian areas in the foothills north of the I-15.

Northern Harrier

This species is a year-round resident of southern California. It nests on the ground in open areas such as grasslands and agricultural fields. It also forages in these habitats, but also forages in areas with low growing shrubs such as Riversidean sage scrub. This species was observed in 2002 and likely nests in Fontana, north of the I-15.

Logger-headed Shrike

This species of shrike hunts in open or grassy areas and nests in large chaparral shrubs such as ceanothus and lemonade berry. The extreme northern and southern portions of the City (foothills of the San Gabriel Mountains and the Jurupa Hills) provide suitable nesting and foraging habitat for this species. It has been observed in each of these locations.

Bell's Sage Sparrow

This species is typically found in chaparral on alluvial fans and foothills. This species was observed in north Fontana in 2002, north of the I-15.

Southern California Rufous-Crowned Sparrow

Suitable habitat exists for the rufous-crowned sparrow in the northern portions of the City north of the I-15, which generally prefers rocky hillsides and steep bushy or grassy slopes. This species has been observed within Fontana.

Los Angeles Pocket Mouse

This species occupies similar habitats as the northwestern San Diego pocket mouse. This species was found during trapping efforts in north Fontana, north of Summit Avenue between Citrus and Sierra Avenues, south of I-15.



Northwestern San Diego Pocket Mouse

This small rodent species prefers open, sandy habitats on the valley floor and foothills of San Bernardino County. This species was trapped during focused survey activities in north Fontana, north of Summit Avenue between Citrus and Sierra Avenues, south of I-15.

San Diego Horned Lizard

This species generally occurs in grassland and RSS, and chaparral. It is usually found in open sandy areas such as ridge tops and washes, especially where harvester ants are found. This species was formerly common throughout southern California west of the deserts, but has declined substantially due to development and as a result of over-collecting for the pet trade. This species has been observed in old vineyards throughout the City and is considered present.

Orange-throated Whiptail

The orange-throated whiptail occurs in RSS and chaparral where loose soils and occasional rocky areas are found. Although no individuals have been observed during recent project biological surveys, the City provides some suitable habitat for this species, particularly in the north end, south of I-15 and in the Jurupa Mountains. The orange-throated whiptail has a moderate potential to occur on vacant lands throughout the City.

California Mastiff Bat

This bat forages in a variety of habitats including open arid habitats such as RSS and grasslands as well as riparian woodlands. They generally roost in crevices of cliffs, high buildings, trees and tunnels. A colony of California mastiff bats was found in an elementary school in eastern Rancho Cucamonga in 1992. There is a moderate potential for this species to occur.

Existing Conservation Areas

Currently, there is not a regional MSHCP in place to provide cities within the Inland Empire a set mitigation program for offsetting potential impacts to above sensitive plant and wildlife species. However, a few conservation areas have been established in the last ten years in response to specific projects, including the I-210 Freeway and sand and gravel operations within the Lytle Creek/Cajon Creek washes. The Etiwanda Preserve is a 768 conservation area within unincorporated lands north of the City of Rancho Cucamonga and was established by SANBAG in cooperation with San Bernardino County in 1994 as mitigation for the development of the I-210 Freeway. The lands surrounding the Preserve have also been identified by the County as part of the proposed North Etiwanda Open Space and Habitat Preserve (NEOSHP). The NEOSHP conservation area and program have not been



formally adopted by the County. Within the Lytle Creek and Cajon Creek wash system east of Fontana, the sand and gravel company, Vulcan (formerly CalMat) has established a 1,378 acre conservation site and mitigation land bank within the RAFSS habitat. Another 153 acres of RAFSS habitat have set aside by CEMEX (formerly Sunwest) and a 150-acre Santa Ana River Woollystar Preserve at the southern tip of the San Bernardino County Sheriff's Training Facility have been set aside as conservation lands within the Lytle Creek/Cajon Creek wash area. In addition, the County of San Bernardino will be establishing a conservation area/mitigation bank in RAFSS habitat in the Cajon Wash on the east side of the Glen Helen Regional Park. Lands within and around these conservation lands and mitigation banks are available to offset impacts to sensitive biological resources in Fontana.

Cultural and Historic Resources

History of Fontana

The planning area began to show clear evidence of human activities at least by the 1850s, but Euroamerican settlement and land development apparently did not begin in earnest until the 1870s. Between 1852 and 1856, the only man-made features noted by U.S. land surveyors in the planning area were several winding roads, including a "San Bernardino Road," also identified as "Los Angeles and San Bernardino Road," traversing just to the south of present-day Baseline Road, and an "Old San Bernardino Road" running along the foot of the Jurupa Mountains (Exhibit 3 in Appendix E, Cultural Resources Technical Report [TR]). The Old San Bernardino Road, in all likelihood, might have been used as a Native American trading route since ancient times, and was probably the western extension of the historic Cocomaricopa-Bradshaw Trail. The "new" San Bernardino Road evidently represented the wagon road blazed by Mormon settlers in San Bernardino for freight transportation to the Los Angeles area after the founding of the San Bernardino colony in 1851.

In 1874, the Sainsevain brothers, a family of French immigrants who had already established themselves among the leading viticulturists and vintners in California, began to move their grape cultivation and wine making operations from Los Angeles to the foothills in the northern portion of the planning area. Joining the Sainsevains in that area were several other early settlers, whose endeavors were reflected in subsequent land surveys by the observations of such features as "[Thomas] Hawker's house," "Hawker's corn field," "M. R. Potter's fences," "Fuson's house," "Perdew's peach orchard" and, later in the early 1880s, Victor de Lor's house and vineyard (Exhibit 4 in Appendix E, Cultural Resources TR). All of these were situated around the mouths of Lytle Creek and San Sevaine Canyon, at the northern end of the planning



area, while the balance of the planning area apparently remained largely unsettled up to at least the late 1880s.

As mentioned above, the birth of Fontana can be traced to the subdivision of the Rosena townsite, located in today's downtown area, by the Semi-Tropic Land and Water Company in 1887. As a town, Rosena made little progress prior to 1913, but by the mid-1890s it had become one of the three noticeable centers in the area's rural settlement pattern, along with the community of Grapeland at the foot of the San Gabriel Mountains and the Declezville quarry at the foot of the Jurupa Mountain (Exhibit 5 in Appendix E, Cultural Resources TR). A number of buildings were noted in the planning area by that time, scattered around these three locations, with the largest group in the eastern portion of the planning area between Baseline Road and the Santa Fe Railway.

Like many other communities in southern California, Fontana embarked on a period of rapid growth in the early 20th century, especially after the rededication of the townsite under its current name in 1913. By the 1930s, virtually the entire planning area had been settled, although the southwestern and southern rims remained only sparsely populated. The southern half of the planning area, led by downtown Fontana, had begun to show early signs of urbanization. In the meantime, the northern portion of the planning area, around what was once known as Grapeland, continued to be dominated by large agricultural enterprises, such as the Bullock Ranch, with only widely scattered buildings present. This pattern of development, in fact, persisted until the beginning of the current housing boom in the 1980s.

The establishment of the Kaiser Steel Mill in the western portion of the planning area in 1942 had a profound influence on the growth of Fontana as well as other surrounding communities. This momentous event marked the end of Fontana's history as an agricultural settlement, and greatly escalated the urbanization process in the planning area. Within a period of 10 years, the density of buildings increased dramatically, particularly in the south-central portion of the planning area between downtown Fontana and the Kaiser Steel Mill, reflecting an equally dramatic increase in the town's population. In 1952, Fontana incorporated as a city. Under current federal and state historic preservation guidelines, all buildings and other features of built environment dating to this period of rapid expansion—up to 1957—are to be considered potentially historic, and as such require proper identification and evaluation.

Regulatory Environment

Federal Programs

The National Historic Preservation Act (NHPA) of 1966, as amended, mandates that all federal agencies assume responsibility for the



preservation of historic properties owned or controlled by the U.S. government. Section 106 of NHPA requires federal agencies to take into account the effect of an undertaking on any historic properties prior to approval of the undertaking. When delegated the responsibility for Section 106 compliance, such as in some programs funded by the U.S. Department of Housing and Urban Development (HUD), a local government agency may also take the lead in the NHPA-compliance process.

In practice, many federal agencies recognize an enhanced role for Certified Local Governments (CLG). The CLG program, a joint federal-state initiative administered by the National Park Service and the State Historic Preservation Officers (SHPO) of each state, provides technical assistance and small grants for historic preservation purposes to local governments that meet certain requirements. In California, CLGs are encouraged by the State Office of Historic Preservation (OHP) to play an active role in the Section 106 process within its jurisdiction. A CLG can benefit from historic preservation expertise, professional and technical assistance, information exchange, and statewide preservation programs coordinated by the OHP and, last but not least, special grants from the Historic Preservation Fund administered by the SHPO. A former CLG, the City of Fontana has chosen to withdraw from the CLG program due to local circumstances.

Under the provisions of NHPA, the Secretary of the Interior has established the National Register of Historic Places, a nation-wide inventory of districts, sites, buildings, structures, objects, or other features of national, state, or local historical significance. According to statutory definition, any property listed in or determined to be eligible for listing in the National Register constitutes a "historic property." At present, two sites within the planning area, the Fontana Indian Pit and Groove Site (CA-SBR-716) and the Fontana Farms (P1073-32H), are listed in the National Register. Additionally, several of the recorded archaeological sites within the planning area have been evaluated as eligible for listing in the National Register, although not officially listed at this time.

State Programs

The California Register of Historical Resources, established in 1992, is the State of California's counterpart to the National Register of Historic Places. Its listings include all properties listed in or officially determined eligible for listing in the National Register. Together with the California Register, the Office of Historic Preservation (OHP) maintains two other registers to promote historic preservation in the state: California Historical Landmarks, a designation for properties of statewide historic importance, and Points of Historical Interest, for properties of county-wide or regional importance. Properties included in any of these registers



are eligible for a number of state historic preservation incentives, such as property tax reduction, benefits provided by the California Heritage Fund, alternative building regulations under the State Historic Building Code, special historic preservation bond measures, and seismic retrofit tax credits

Within the planning area, one property, the U.S. Experimental Rabbit Station (P1073-39H), has been designated a California Historical Landmark (CHL-950). Eleven others are currently listed as Points of Historical Interest, including the Fontana Indian Pit and Groove Site, the Fontana Farms, Baseline Road, Los Angeles to Sonora Road, Kaiser Steel Mill, Chaffey-Garcia House, Fontana Library, Declez Ranch/Quarry, Women's Club, Sinclair Commercial Block, and the site of the Community of Grapeland, at the foot of the San Gabriel Mountains.

Regulatory Guidelines on Cultural Resources Management

Section 106 of National Historic Preservation Act mandates that federal agencies or HUD-designated local agencies with jurisdiction over federal or federally assisted undertakings take into account the effect of the undertakings on any "historic properties" during the planning process (16 USC 470f). For projects with no federal involvement, the California Environmental Quality Act (CEQA) similarly requires lead agencies to consider whether their discretionary actions may cause substantial adverse changes to "historical resources" (PRC §21084.1). Although termed differently in NHPA and CEQA, "historic properties" and "historical resources" both refer to a special class of cultural resources that meet the definitions set forth in the statutes and their implementation regulations.

A local register of historical resources, as defined by PRC §5020.1(k), "means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." In the City of Fontana, the Fontana Historical Society has compiled a list of potential historical sites that were considered to be significant to the local community, which is incorporated into the City's existing General Plan (1990 version). In addition, Article XIII (Preservation of Historic Resources) of the Fontana City Code provides that

The City Council may designate any improvement, natural feature or site as an historical resource and any area within the City as an historic overlay district if it meets the criteria for listing on the National Register of Historic Places or the following.

- It has a special historical, archeological, cultural, architectural, community or aesthetic value;



- It is identified with persons, a business use or events significant in local, state or national history;
- It embodies distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
- It has a unique location or singular physical characteristic that represents an established and familiar visible feature of a neighborhood or community or the city;
- Its integrity as a natural environment or feature strongly contributes to the well-being of residents or a neighborhood of the city; or
- It is a geographically definable area possessing a concentration of sites, buildings, structures or objects that are unified by past events or are unified aesthetically by plan or physical development. (§5-355, Fontana City Code: Historical Resources Designation Criteria).

Under CEQA, properties included in the city's existing list or otherwise designated by the city should be "presumed to be historically or culturally significant unless the preponderance of the evidence demonstrates [otherwise]" (PRC §21084.1). Any property that meets one or more of the criteria listed above, thus, falls under the protection of NHPA and/or CEQA. Depending on the nature, significance, integrity, and current condition of the property, the proper form of protection may range from on-site preservation to project effect mitigation, such as in-depth documentation for historic buildings and data recovery excavation for archaeological sites.

Cultural Resource Studies

The northern half of the planning area, as delineated by Foothill Boulevard, within this area, and in the western and southern portions of the planning area—around the former Kaiser Steel Mill and along the Jurupa Mountains, respectively—more than 100 other cultural resources studies have taken place on various tracts of land and linear features, many of them intensive-level surveys.

As a result of these previous studies, 79 archaeological sites have been identified and recorded within the planning area, along with a number of isolated artifacts. This total includes 14 prehistoric—i.e., Native American sites, 62 historic-era sites, and 3 sites with both prehistoric and historic-era components. One cluster of the prehistoric sites in the southern portion of the planning area has been interpreted by archaeologists to be the remains of an important Native American village of unknown antiquity, while a number of campsites and other habitation areas have also been identified. The majority of prehistoric sites, however, represent evidence of Native American food-processing



activities, such as bedrock milling features, which are quite common in the Inland Empire region. All of these prehistoric sites have been found along the foothills of the San Gabriel and the Jurupa Mountains, at the northern and southern ends of the planning area.

The historic-era sites consist mainly of residential areas, although irrigation systems, transportation features, and other types of resources are also represented. These sites are scattered virtually throughout the entire planning area. The historic U.S. Route 66 (now Foothill Boulevard), the former Kaiser Steel Mill, and the Boulder-Los Angeles power transmission lines are among the better-known of these historic-era sites. The Southern Pacific Railway (now Union Pacific), completed in the 1870s, and the Atchison, Topeka and Santa Fe Railway (now Burlington Northern and Santa Fe), completed in the 1880s, have also been recorded as historic-era archaeological sites.

In addition to the recorded archaeological sites, a total of 114 pending historic sites have been noted in the planning area by AIC records. This number includes mostly historic-era residences and other buildings, with structural remains, irrigation features, and roads comprising the other common resource types. The construction dates of the buildings range generally from the early 20th century to the 1940s, while some of the irrigation features and roads in this group date to as early as the early to mid-19th century, well before the birth of the present-day community of Fontana.

A number of these previously identified sites, either recorded or pending, have been listed in various registers of heritage properties maintained by the federal or state historic preservation agencies. In all, 2 National Register-listed properties, 1 California Historic Landmark, and 11 California Points of Historic Interest are located in the planning area, including the Fontana Pit and Groove Site, the Fontana Farms, the U.S. Experimental Rabbit Station, and the former Kaiser Steel Mill. In addition, several of the recorded archaeological sites have been evaluated as eligible for listing in the National Register of Historic Places, although not officially listed at this time.

Areas of Cultural Sensitivity

The foothills along the San Gabriel and the Jurupa Mountains are most sensitive for possible archaeological remains from the prehistoric period. In particular, moderately sloping fans with deep soil near the mouths of canyons or springs are very likely to contain prehistoric archaeological sites of potential significance. The rest of the planning area demonstrates a low to moderate level of sensitivity in this respect. For buildings, structures, objects, or archaeological remains dating to the historic period, essentially the entire planning area shows a moderate level of sensitivity, with the possible exceptions of certain areas in the



northern and southern rims and along some of the City's thoroughfares where large-scale redevelopment has occurred during the more recent decades. Most notably, the downtown area, bounded generally by Miller Avenue on the north, Cypress Avenue on the west, Merrill Avenue on the south, and Tamarind Avenue on the east, hosts a higher concentration of historic-era buildings, including many that are considered significant by the local community. Please see the Cultural Resources Technical Report in the attached appendices for a detailed listing of historical sites. Figure 9-5 illustrates the historic era downtown area and the northern and southern parts of the City where there is a likelihood of discovering additional prehistoric resources.

ISSUES, GOALS, POLICIES & ACTIONS

This section defines the planning context for conservation and management of the City's natural and cultural resources, in terms of the key issues that are addressed by the Open Space/Conservation (OS/C) Element, and the policy-level and programmatic strategies to achieve the vision described in this chapter.

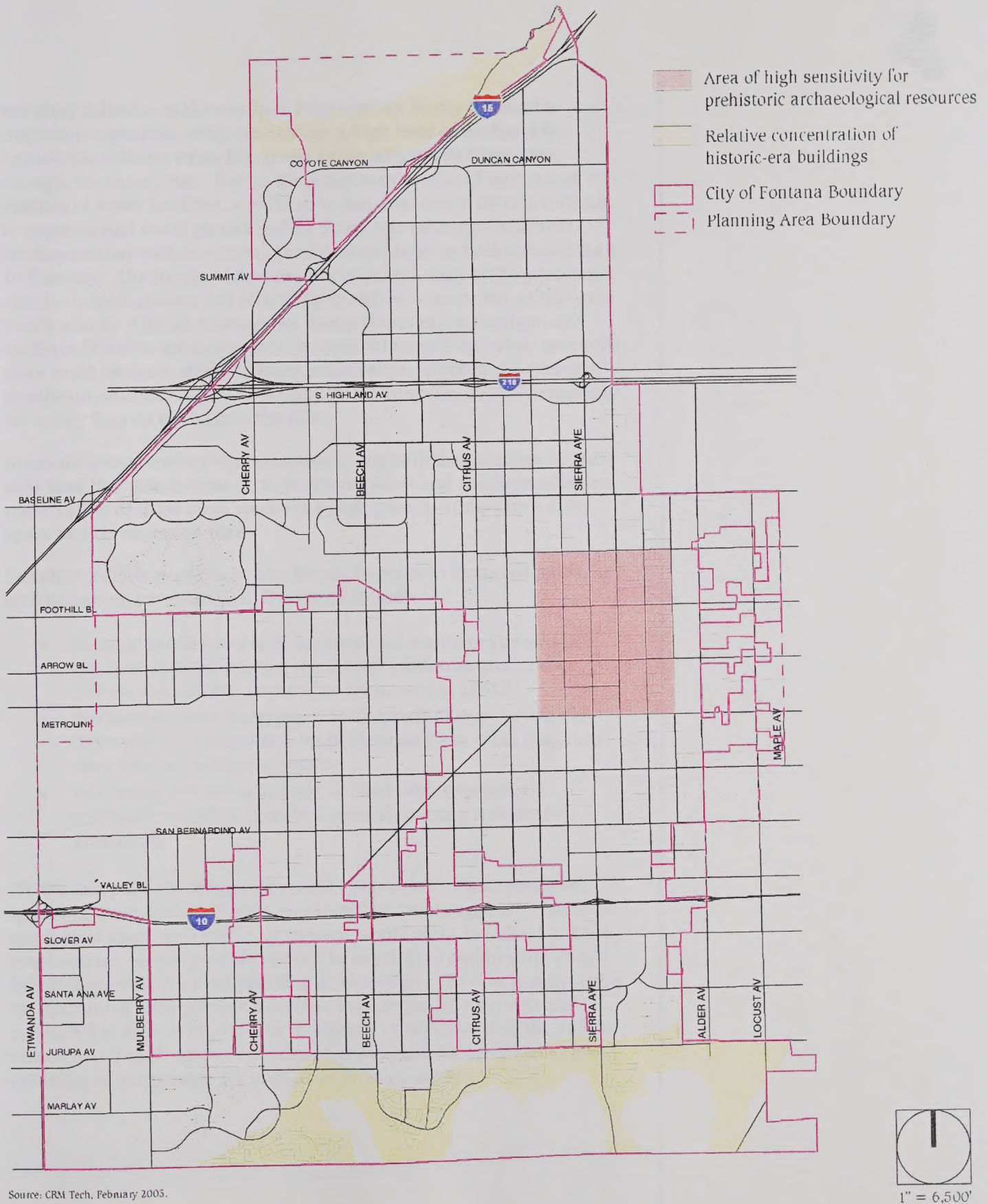
ISSUE # 1: PRESERVATION OF NATURAL OPEN SPACE

How can the City best preserve environmentally sensitive, natural open spaces in the planning area?

Discussion: The lower San Gabriel Mountains, abutting national forest land along the northern edge and the Jurupa Hills, along the southern edge, contain the last expanses of natural open space in the planning area. These are also the most visually prominent topographic features, and provide a scenic vista from many mobile and stationary viewing locations throughout the community.

Each of these hilly areas supports a range of sensitive plants and wildlife species, including federal and state listed bird species. Three natural stream courses in the northern area flow from the foothills down to the valley floor, and out of the Jurupa Hills. Riparian habitat occurs in each of these natural drainage courses.

Historic Resources



Source: CRM Tech, February 2003.



The steep hillsides in the northern edge contain highly flammable chaparral vegetation, which represents a high level of wildland fire hazard, particularly when hot, gusty Santa Ana winds blow down through the Cajon Pass. Due to the steep terrain, lack of access and absence of water facilities, a wildfire in this area would be very difficult to suppress and could spread rapidly down into existing residential development as well as vacant, grass-covered land on both sides of the I-15 Freeway. The Jurupa Hills along the southern edge of the planning area have high grasses and locally steep slopes; a major fire in this area would also be difficult to suppress. Steep slopes in the northern and southern hillsides are susceptible to potential instability; when saturated, there could be small slides, slumps, or soil slips, which could generate significant mud and debris flow through the canyons, possibly reaching the valley floor at the base of the hills.

Given the scenic and ecological values, along with the geophysical and wild land fire hazards that occur in the northern and southern hillsides, preservation of these open spaces is a high priority in the City's open space and conservation plan.

Sensitive wildlife species are also known to occur in disturbed lands, as well as natural communities. Examples include:

- Suitable habitat occurs in northern and southern Fontana, for two federal-listed species, the coastal California gnatcatcher (CAGN) and the San Bernardino kangaroo rat (SBKR).
- The federal-listed Endangered Delhi Sands Flower-Loving Fly (DSF) has been found in a former vineyard and other disturbed open land in southern Fontana.
- Burrowing owl and a number of other raptor species are commonly found in disturbed areas supporting non-native grasslands.

Private and public development projects that would impact sensitive species in these disturbed open spaces will be encouraged to preserve as much open space as possible. If impacts would occur to federal or state listed species, project proponents will be required to obtain state and/or federal approvals prior to beginning construction. The City is responsible for monitoring local projects to ensure that proper field surveys are conducted to determine presence or absence of sensitive wildlife, and to ensure that if such species are present, that measures are taken to avoid, minimize or compensate for impacts to affected species.



GOAL #1.1

Preserve Natural Open Space in the San Gabriel Mountains and Jurupa Hills

Policies:

- 1) Support preservation of the open space along the San Gabriel Mountains and Jurupa Hills for natural habitat, scientific inquiry, passive recreation and scenic values.
- 2) Cooperate with and facilitate efforts to place natural open space in public or quasi ownership, under the management of a public or quasi-public agency or a non-profit conservancy.
- 3) Maintain open space buffers between the San Gabriel and Jurupa Mountains and any form of development, including streets and highways, where feasible.

Actions:

- 1) Apply the Open Space land use designation and related zoning classification to appropriate areas within the San Gabriel and Jurupa Mountains
- 2) Take steps to annex the open space in the northern Sphere of Influence, and zone the San Gabriel Mountains portion for natural open space uses only.

GOAL #1.2

Conserve Natural Habitat and Protect Rare, Threatened and Endangered Species

Policies:

- 1) Encourage the preservation of natural habitat in conjunction with private or public development projects.
- 2) Require mitigation for removal of any natural habitat, including restoration of degraded habitat of the same type, creation of new or extension of existing habitat of the same type, financial contribution to a habitat conservation fund administered by a federal, state or local government agency, or by a non-profit conservancy.
- 3) Apply local CEQA procedures to identify potential impacts to rare, threatened and endangered species.
- 4) Require evidence of satisfactory compliance with any required state and/or federal permits, prior to issuance of grading permits for individual projects.



- 5) Require site-specific surveys to identify the presence/absence of sensitive species and natural communities, for all projects located in areas identified in the Sensitive Biotic Resources database.

Actions:

- 1) Maintain an up-to-date Sensitive Biotic Resources database within the Planning Department. Information in the database will include the location, size, habitat characteristics, sensitive species, and pertinent federal and state regulations of the natural communities remaining in the planning area, as shown on Figure 9-3. The database will also identify areas outside of natural communities containing suitable habitat for sensitive wildlife species, as shown on Figure 9-4. Any critical habitat units designated by the U.S. Fish and Wildlife Service will be included in the database.
- 2) Use the Sensitive Biotic Resources database as an information resource to inform the City's decision-makers, City staff, and interested citizens.
- 3) Complete efforts to gain federal approval of development in north Fontana through the Multi-Species Habitat Conservation Plan (Section 10a) or a Section 7 consultation under the federal Endangered Species Act. Target species include the federal-listed Endangered San Bernardino Kangaroo Rat and the federal-listed Threatened Coastal California Gnatcatcher, as well as raptor species.
- 4) Work with the private landowners and USFWS to expand Mary Vagel Park to provide additional conservation land for the DSF, and thereby expand the City's open space resources.

ISSUE #2: PLANNING FOR MIXED-USE OPEN SPACE

How can the City best use mixed-use open spaces such as utility corridors, easements, flood control channels, detention basins, quarries and agricultural lands for recreational and other open space purposes?

Discussion: There are a number of established open, linear corridors in the planning area, where communications, electrical, natural gas, water, sewer and flood control facilities have been built, or where right-of-way for future facilities has been reserved. The utility purveyor and flood control agency control these corridors through easements or fee ownership, and thus they are, in effect, permanent open spaces, although not necessarily free of buildings or other above- or below-ground facilities. Some of these corridors link directly to existing or planned parks. Others are on the edge of or transect natural or disturbed open space lands, while others pass through developed areas.



Where appropriate agreements can be reached with the right-of-way owners or easement holders, there are opportunities for recreational uses, such as bicycle and pedestrian pathways, equestrian trails, fitness courses, educational and cultural displays, etc. As such, the utility corridors can be useful elements of the City's open space and recreation system. Additional discussion of recreational open space opportunities associated with utility corridors, and related goals, policies and action plans is provided in the Parks, Recreation and Trails Element.

Open space uses such as drainage detention basins, reclaimed quarries and farmland can also function for a variety of other open space uses. For example:

- Private or public detention basins can be used for active or passive recreational purposes during the majority of the year when they are dry and for ground water recharge during wet periods.
- Properly reclaimed quarry sites can be used for a variety of open space purposes, including flood control, ground water recharge, parks, golf courses, and wildlife habitat.
- Fallow farmland could be restored to some form of farming use as an example of the City's agricultural past, could be used for various forms of recreation, cultural and educational experiences, ground water recharge, flood control, etc.

GOAL #2.1

Provide public access to and allow joint recreational use of utility corridors, wherever feasible.

Policies:

- 1) Link multi-use utility corridors to other elements of the local and regional parks and trails systems wherever feasible.

Actions:

- 1) Evaluate all utility corridors and flood control channels with respect to opportunities for public access and joint recreational uses, and enter into joint use agreements to facilitate such joint uses, where feasible with the utility agencies and the San Bernardino County Flood Control District.
- 2) Incorporate utility corridors and flood control channels where joint use agreements are in effect into the Master Plan of Parks and Recreation and the Parks, Recreation and Trails Element of the General Plan.



- 3) Address design standards, financing plans, etc. for joint recreational use of utility corridors and flood channels within the Master Plan of Parks and Recreation.

GOAL #2.2

Expand the open space and conservation system, where feasible, to include private and public lands that offer multi-use open space and cultural resource opportunities.

Policies:

- 1) Evaluate opportunities for mixed-uses of private and public open space and utility rights-of-way and incorporate such mixed uses into the approved plan as part of the new development and public infrastructure planning process.

Actions:

- 1) Amend the zoning ordinance to add a provision within the specific plan standards that requires consideration and incorporation of mixed-use open spaces.

ISSUE #3: WATER RESOURCES

How can the City best conserve and prevent pollution of its water resources?

Discussion: Fontana's water supply is obtained primarily from local ground water sources, supplemented with purchases of more expensive imported water from the State Water Project. Population and economic growth is projected to rise rapidly and for a long period of time, throughout the basin. The projected growth will place increasing pressure on the basin ground water resources. Water conservation measures and production and distribution of alternative water supplies will become increasingly important. To the extent that polluted urban runoff is allowed to reach surface waters or infiltrate into ground waters, the basin water supply will be adversely impacted, requiring increased levels of treatment, with corresponding higher treatment costs. Additional imported water supplies will also likely need to be purchased, and it is likely that these supplies will become more costly and/or more difficult to acquire.

Although the City does not directly control any water resources that contribute to its water supply, there are measures it can take to ensure water resources are used more efficiently, to provide and ensure use of alternative supply sources, and to avoid and minimize pollution of surface and ground waters by urban runoff and point source discharges.



GOAL #3.1

Maximize efficient allocation and water resource use for existing and future water consumers.

Policies:

- 1) Promote use of xeric (adapted to arid conditions) landscaping techniques in master planned communities, and other new land use plans. Provide public information concerning xeric plant palettes and low water usage irrigation systems.
- 2) Replace existing turf areas and other high water consuming landscaping within City street medians and parkways with xeric vegetation and miscellaneous hardscape materials.
- 3) Participate with the Inland Empire Utilities Agency, the Fontana Water Company, the Cucamonga County Water District, and the West San Bernardino County Water District to develop and implement water conservation programs and to encourage the use of water conserving technologies, for indoor and outdoor applications.

Actions

- 1) Complete and implement a Recycled Water Master Plan to include:
 - A broad customer base
 - A supply and distribution system to serve the entire customer base
 - A long-term capital improvements financing plan
 - Ongoing fee mechanism to recover the City's costs of developing and maintaining a recycled water system.
- 2) Continue to enforce all provisions of Ordinance No. 1087, and update it periodically to reflect expanded conservation options as new technology is perfected.

GOAL #3.2

Protect water resources in the planning area from urban runoff and other potential pollution sources.

Policies:

- 1) Promote the use of structural and non-structural water quality best management practices (BMPs) in land planning and project-level site planning.
- 2) Require structural and non-structural BMPs for all parking lots and paved storage areas within industrial and commercial zones, for the



City's street network, and within the City's parks and other civic facilities.

- 3) Cooperate with ground water contamination, (e.g. perchlorates) investigations and clean up efforts by the local water agencies, the Santa Ana Regional Water Quality Control Board (SARWQCB) and responsible private parties.
- 4) Fulfill the City's obligations for storm water management, in accordance with the Implementation Agreement among the SBCFCD, the County, and the cities in San Bernardino County, under the terms of Order No. R8-2002-0012, issued by the SARWQCB.
- 5) Cooperate with other agencies and participate in multi-jurisdictional efforts to improve watershed management practices.

Actions:

- 1) Continue to implement and enforce the provisions of the Area Wide Urban Storm Water Runoff Program, pursuant to the countywide NPDES Permit for Storm Water Discharges.
- 2) Continue to update and implement a citywide Municipal Storm Water Pollution Management Program, including:
 - Identification and monitoring of sources of pollutant in storm water runoff flowing into the City's municipal storm drainage system
 - Update the MSWPM, when necessary, to be consistent with the county-wide MSWPM
 - BMPs to be applied throughout the City's street network, parks, and other public facilities that produce runoff into the storm drain network
- 3) Develop a model set of BMPs that can be incorporated into new development plans, and make these available to prospective land developers and other interested or affected parties,
- 4) Seek state and federal funding to support a full-time water quality specialist in the Public Services Department, or retain an outside consultant. The specialist would review and approve runoff management plans, provide public information concerning urban runoff problems and prepare BMPs for various applications.
- 5) The Public Services Department will conduct regular inspections of industrial and commercial facilities to ensure there are no illegal waste discharges to the storm drainage system and no illegal waste discharges are allowed to run off as sheet flow.



- 6) Enact regulatory authority to issue fines or impose other penalties upon violators of the City's MSWPM, until violations are corrected.

ISSUE #4: CULTURAL RESOURCES

How can the City best preserve its cultural resources—historic buildings and sites and archaeological areas?

Discussion: The present-day City of Fontana traces its roots to the small rural colony of Rosena, which was founded in 1887, shortly before the collapse of the great southern California land boom of the 1880s. Resurrected by A. B. Miller in 1913 and renamed Fontana, the town remained rural in character until the early 1940s, when the establishment of the Kaiser Steel Mill began to transform the Fontana area into a center of heavy industries. Starting in the 1980s, Fontana has been an important part of a new land boom that swept across the western San Bernardino Valley, dominated by residential and commercial development, as the region embarked upon yet another transformation to "bedroom communities." The outlying, formerly agricultural areas of the City, in particular, have seen rapid urban growth over the past few decades, while the historic downtown continues to be confronted with the necessity for redevelopment and urban renewal.

Like many other older communities in southern California, virtually all areas within the City of Fontana now have to address issues arising from the changing characteristics of the community, as the ongoing wave of growth poses a continuous challenge to properly identify and preserve important historical aspects of the City's agricultural and industrial heritage. Salient among these issues is the preservation of key landmarks and revitalization of Fontana's historic era downtown, which is threatened both by new development within its perimeter and by competition from emerging commercial centers outside its perimeter. Also prominent is the issue of the preservation and adaptation of the City's cultural identity in the face of the changing demographics as the result of recent growth.

Fortunately, these issues are by no means unique to Fontana. Since the mid-1960s, precisely for the purpose of meeting such challenges brought about by accelerating growth, both the federal and state authorities have created a number statutes, regulations, and programs to help local communities preserve their historical and cultural heritage. The City of Fontana has taken advantage of some of these opportunities, while others remain to be implemented.

**GOAL #4.1**

The City will seek to identify and inventory all historical and archaeological resources within the City boundaries and its sphere of influence.

Policies:

- 1) The City will adopt the necessary means to identify cultural resources within its jurisdiction.
- 2) The City will consider the identification of cultural resources an integral part of the planning process.

Actions:

- 1) Maintain and expand as necessary the existing local historical resources register to provide a comprehensive and up-to-date inventory of known cultural resources.
- 2) Encourage the nomination of qualified properties to the City's historical resources register and/or the various federal or state registers.
- 3) Establish and maintain channels of routine consultation with the Archaeological Information Center at the San Bernardino County Museum and the Fontana Historical Society during the planning process.
- 4) Take advantage of opportunities provided by the statute-compliance procedures, including Article XIII of the Fontana City Code, the California Environmental Quality Act, and Section 106 of the National Historic Preservation Act, when applicable.

GOAL #4.2

The City will encourage and support the preservation, rehabilitation, and/or restoration of historical and archaeological resources within the City boundaries and its sphere of influence.

Policies:

- 1) The City will make all reasonable efforts to protect cultural resources under its control.
- 2) The City will support incentives, assistance, and opportunities for historic preservation available through federal, state, or City programs.



- 3) The City will use its regulatory power to ensure the proper protection of cultural resources and avoid or minimize adverse effects on such resources from private projects that require discretionary City actions.

Actions:

- 1) Adopt a proactive approach to historic preservation in all City-sponsored or assisted projects and programs to ensure the proper protection of cultural resources.
- 2) Develop the necessary procedures to implement federal or state incentive programs, such as property tax reduction, income tax credit, transfer of development rights/density bonus, and the various grant programs.
- 3) Amend the City's zoning laws to reflect historic preservation regulations and incentives.
- 4) Modify development standards, including parking, setback, landscaping, and road/driveway width, to accommodate the preservation of historic buildings and districts.
- 5) Require all proposed project sites to be surveyed by a qualified archaeologist, historian, and/or architectural historian, as appropriate, to identify any potential cultural resources that may be affected, unless the preponderance of the evidence demonstrates that such survey is unnecessary.
- 6) Establish policies and procedures in code enforcement to prevent deterioration of historic buildings, structures, and districts.

GOAL #4.3

The City will seek to integrate preservation of historical and archaeological resources into economic development strategy.

Policies:

- 1) The City will use its historic preservation programs to stimulate community revitalization, redevelopment, job creation, and investment in the community.
- 2) Promote the preservation and rehabilitation of the City's older residential neighborhoods to provide affordable housing.
- 3) Apply incentives to encourage compatible development and redevelopment projects in existing residential neighborhoods and commercial districts without sacrificing the integrity of cultural resources.



Actions:

- 1) Consider historic preservation strategies as part of a specific plan to be developed to stimulate revitalization of the downtown area.
- 2) Develop and distribute materials promoting historic preservation as a means to stabilize and enhance property values in the City.

GOAL #4.4

The City will seek to increase public awareness and enjoyment of Fontana's heritage.

Policies:

- 1) The City will sponsor, and encourage others to sponsor, public education programs and other activities to disseminate information about Fontana's history and cultural heritage.
- 2) The City will coordinate efforts to enhance the quality of life in Fontana through historic preservation.

Actions:

- 1) Improve availability of information on historic buildings, structures, districts, and objects to the general public, except in cases where it can be demonstrated that increased public access will compromise the integrity of these resources.
- 2) Explore the prospect of City-sponsored or cosponsored publications to publicize Fontana's history and cultural resources.
- 3) Explore the development of local history curricula in public schools in conjunction with the Fontana Unified School District.
- 4) Promote the use of historic districts and appropriate cultural resources for the education and enjoyment of the public, including the development of walking, driving, or bicycling tours.



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Chapter 10

Parks, Recreation & Trails

Element



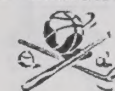


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Chapter 10.

Parks, Recreation & Trails Element

INTRODUCTION

A Beautiful Context

The City of Fontana is striving to make its parks and trails system even better. Surrounded on the north by the San Gabriel Mountains and on the south by the Jurupa Hills, Fontana enjoys good access to abundant natural open space. With a mixture of regional, community and neighborhood parks, the City already has some fine recreational facilities. Situated at the head of the San Bernardino Valley, Fontana has the opportunity to expand its multi-use trail system and link it to the region.

Enhancing the General Plan

A Parks and Recreation Element is not a required element of the General Plan by state law, but a desirable one at local option. By assessing what it has and charting where it wants to go, the City of Fontana aspires to develop a system of recreational opportunities that improves the quality of life of its citizens by providing a variety of healthy activities. A vibrant and diverse system of parks and trails is one of the finest amenities that a city can provide for aesthetic, health and economic reasons.

A Background of Planning

The City of Fontana has historically planned for and promoted its park and recreation system. In 1999, the City adopted a Parks, Trails and Recreation Master Plan which documented existing facilities, noted deficiencies and recommended additions to the system to meet current



Fontana residents enjoying one of the City's court facilities.



and future demand. The Master Plan serves as the guidance document in developing a Capital Improvement Program. It also provides significant input to this element.

ACHIEVING THE VISION

The citizens of Fontana are proud of their parks, bikeways, trails and recreation facilities and see them as a way to connect different neighborhoods to the entire City. As part of the community visioning process in March 2002, citizens and city officials identified the following long-term goals:

- ◆ A system of high quality recreation and community services for all segments of the population, especially youth and senior citizens.
- ◆ Successful acquisition of parklands and open space in creative and effective ways
- ◆ A substantial role for open spaces, bikeways and trails to connect individual neighborhoods into the fabric of the entire community
- ◆ More parks in the under-served Foothill South and West Fontana areas in the City.

COMPONENTS OF THE PLAN: ALL ABOUT PARKS

There are many types of parks and recreational facilities in Fontana, and their description provides the basis for setting future goals and standards. Below is a description of the hierarchy of basic types of parks and trail systems. Figure 10-1, *Parks Standards*, follows the descriptions.

Types of Parks

- ◆ **Regional Parks** – 100 acres or more with a wide range of amenities to attract the greatest range of users and interests within and beyond the city. Their typical service radius corresponds to a one-hour drive. Fontana's regional park – Martin-Tudor-Jurupa Hills Regional Park - is located near the southern border of the City and features a water park, museum, trails, nature center and over 1,000 acres of open space.
- ◆ **Community Parks** – 20 to 40 acres with a service radius of 1.5 miles; typical amenities include pool, lighted sports fields and courts, picnic facilities, play areas, restrooms, off-street parking, and service yards. The City of Fontana currently has eight community parks.



A community facility at the North Fontana Park.

Mini-Parks

Two styles of playgrounds:
2 - 5 Years of age - Tot Lot
5 - 12 Years of age - Play Area

Park Signage
Open Play Area
Playground
Seating Area



Neighborhood Parks

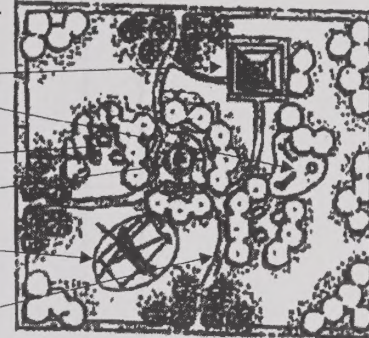
Passive Amenities:

Restroom (1)
Basketball (2)
Playground with Equipment
Picnic Shelter Group
Picnic Areas
100 Parking Spaces (min.)
Large Informal Playfields
Tennis Court (2)
Passive Play Area
Exercise Course
Walkways & Trails

Active Amenities:

Restroom/Snack Bar
Sport Fields w/Lights
Basketball Courts (3) w/Lights
Playground with Equipment
Picnic Shelter Group (2+)
Picnic Areas (10+)
Walkway/Trails
200 Parking Spaces (min.)

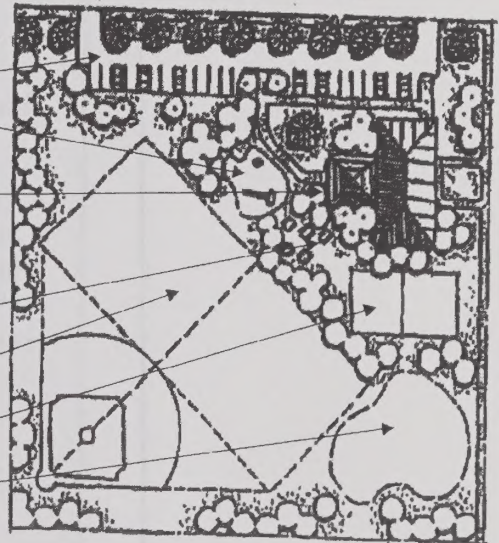
Restrooms
Playground
Picnic Area with Shelters
Central Fountain with Seating
Basketball Courts
Walking Paths



Community Parks

Community Center
Pool Complex
Tennis Court
Roller Hockey Rink w/Basketball Overlay
Sport Fields w/Lights
Restroom/Snack Bar
Playgrounds w/Equipment
Picnic Shelters - Group (4+)
Picnic Areas (20+)
Passive Play Area
Walkways/Trails
400 - 500 Parking Spaces (min.)

Parking
Playground
Community Center
Picnic Area
Sport Fields
Game Court
Passive Play Area



	Primary Function	Space Standard	Service Area Radius	Playground	Picnic Area	Passive Area	Restrooms	Basketball	Walking Paths	Tennis	Baseball/Softball	Soccer/Football	Community Center	Nature	Swimming	Snack Bar
Mini-Park	Up to 1 Acre	Passive	1/4 mile	●	●	●										
Neighborhood Park	10 - 20 Acres	Passive	1/2 mile	●	●	●	●	●								
		Active	1 mile	●	●		●	●	●	◆	■					●
	20 - 40 Acres	Active	1 - 2 mile	●	●	●	●	●	■	■	■	◆	◆	◆	◆	●

● Facility Should be Included in All Parks

■ Facility May be Included in Park

◆ Facility Will be Limited to a Few Parks



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- ◆ **Neighborhood Parks** – 10 to 20 acres; walk or bike-to parks which are located within the neighborhood they serve; include both active and passive designs; represent a separate property delineated by a fence and provide amenities determined by the neighborhood, often including picnic areas, informal fields, tot lots, court games, passive green space and off-street parking. The City currently has seven neighborhood parks.
- ◆ **Sub-Neighborhood Parks** – often called mini-parks, pocket parks or play lots; serve built-up, urbanized areas; often developed in conjunction with specific plans. The City currently has eight sub-neighborhood parks.

Park Standards

The General Plan calls for a park acreage standard of 5 acres per 1,000 residents that includes two acres per 1,000 for community parks and three acres per 1,000 for neighborhood parks. This is one acre greater than the land required by the state's Quimby Act, which requires developers to provide land and/or fees for new parks based on a standard of four acres per thousand residents.

With regard to types of facilities within parks, no single set of accepted standards exist, partly due to the diverse needs of different communities. Nevertheless, the National Recreation and Parks Association (NRPA) has published benchmark guidelines for communities to consider. The City's Master Plan for Parks and Recreation analyzed these standards and those in other nearby cities to create some suggested standards. The results are summarized in Table 10-1.

Table 10-1
Comparison of Suggested Fontana Park Standards to Actual NRPA, Upland, Corona and Temecula Standards (1999)

Facility Type	Fontana (Suggested)*	NRPA	Upland	Corona	Temecula
Community/Senior Center	1/25,000 ¹	N/A	N/A	N/A	N/A
Basketball Court	1/12,700	1/10,000	1/12,400	1/20,000	1/8,300
Multi-Purpose Field	1/5,000 ²	N/A	N/A	N/A	N/A
Handball Court	1/8,900	1/20,000	1/4,900	1/4,000	1/6,500
Indoor Basketball Court	1/36,200	N/A	1/41,700	N/A	1/30,700
Indoor Gymnasium	1/23,000 ¹	N/A	N/A	N/A	N/A
Informal Fields	1/3,100	N/A	1/3,700	N/A	1/2,500
Little League Field	1/6,500	N/A	1/5,000	1/9,900	1/4,500
Roller Hockey Court	1/20,000 ³	N/A	N/A	N/A	N/A
Adult Baseball Diamond	1/18,700	1/5,000	1/22,700	1/40,000	1/7,000



Table 10-1
Comparison of Suggested Fontana Park Standards to Actual NRPA, Upland, Corona and Temecula Standards (1999)

Softball Diamond	1/7,100	1/5,000	1/7,500	1/10,000	1/6,000
Tennis Court	1/2,600	1/2,000	1/2,500	1/2,800	1/3,200
Volleyball Court	1/7,300	1/5,000	1/8,500	1/7,700	1/8,000
Swimming Pool	1/27,800	1/20,000	1/38,000	1/37,000	1/16,300
Play Areas	1/1,800	N/A	1/2,200	N/A	1/1,350
Group BBQ	1/1,500 ¹	N/A	N/A	N/A	N/A
Picnic Shelter	1/5,000 ¹	N/A	N/A	N/A	N/A
Picnic Tables	1/450	N/A	1/500	1/525	1/345
Restroom Facilities	1/5,000 ¹	N/A	N/A	N/A	N/A

Notes:

* Based on average of NRPA, Upland, Corona and Temecula standards unless noted otherwise

¹ Based on standards from the City of Laguna Hills, California

² Based on standards from City of Lake Forest, California

³ Based on standards from Washington D.C.

EXISTING CONDITIONS

Before establishing policies and programs for park needs, the planning process dictates a careful look at what recreational resources the City currently has and what types of facilities the citizens want for the future. As the following section illustrates, the current demographics of the City suggest an increased desire for organized team sports and indoor facilities.

Community Opinion: Workshops, Surveys and Interviews

The City of Fontana's Community Services Department regularly conducts surveys of its residents to better assess recreation needs. The Department also conducts quarterly meetings and maintains a "Parks Hot-Line" to stay on top of current park issues. The most recent mail survey was conducted in 2002 and received a response rate of over 600. The survey, summarized in Table 10-2, showed an 81% satisfaction rate regarding parks and the desire for more sports facilities for team sports and indoor recreation:

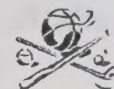


Table 10-2
Parks and Recreation Survey - 2002

Desired Facilities	Desired Programs
Aquatics Center	Youth Sports
Indoor Sports Complex	After-school programs
Lighted Baseball/Softball Fields	Classes for Children
Skate Park	Swimming/Aquatics Program
Pop Warner Football Fields	Adult Sports
Bike/Moto Cross (BMX) Park	

These results are consistent with the resident survey and community workshops held by the Natelson Company and Takata Associates in 1998 for the purpose of creating the Master Plan for Parks and Recreation. The outreach program showed that citizens of Fontana use their parks frequently, give them high marks for safety and maintenance, and enjoy both active (organized sports fields) and passive (play and picnic areas) uses of park space. Over 50% of respondents indicated that they currently use parks. These users visit parks at least 10 times per year. Among users, 91% felt that the parks were well maintained, and 90% feel safe while using the parks.

Respondents also had numerous suggestions for enhancement of Fontana's park system: Recreation/athletic facilities: indoor gyms and more soccer fields were desirable; Park amenities: more lighting and restrooms were needed; Community facilities: senior center and multi-purpose facility should be added; and 30% wanted more recreation programs and special community events.

Existing Parks and Recreation Facilities

The City of Fontana's existing and planned parks are identified on Figure 10-2, *Existing and Future Parks*. These facilities have a mixture of passive and active recreational uses. Also, the City contains one regional park – the Martin Tudor-Jurupa Hills Regional Park – that contains over 700 acres of natural open space. The Fontana Skate Park was opened in 2002. Table 10-3, Summary of Park Facilities, details the park facilities in the City of Fontana as well as the amenities they contain.

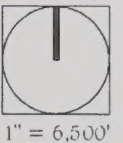
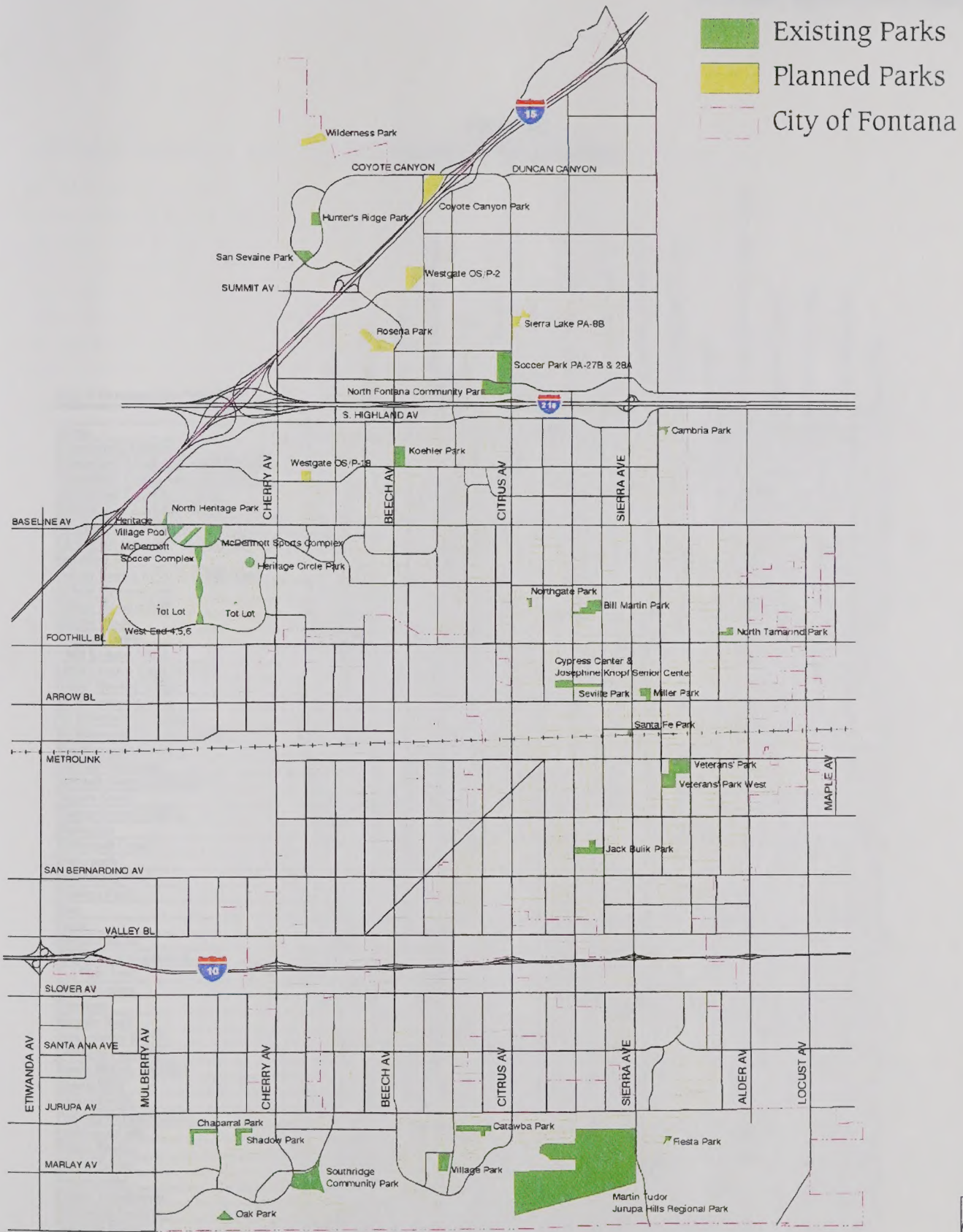


The Martin Tudor-Jurupa Hills Regional Park.



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Existing and Future Parks





Existing Parks
Planned Parks
City of Portland





Table 10-3
Summary of Park Facilities

City of Fontana Park Facilities	Cambria Park	Catawba Park	Chapparral Park	Cypress Community Center	Bill Martin Park	Heritage Circle Park	Heritage Village Pool	Jack Bulik Park & Community Center	Martin Tudor Regional Park	Dr. Charles A. Koehler Park	McDermott Sports Complex	Miller Park	Mary Vagle Museum & Nature Center	North Fontana Park	North Heritage Park	Hunter's Ridge Park	Fiesta Park
Acres	2.5	14.4	10.3	4.73	15.6	3	2.48	17.4	780	10	17	5.5	25	37.5	2.9	4.71	1.3
Community Centers				1			1	1				1	1	1			
Basketball Court- full court w/lights					1			1		2	2				1		
Basketball Court- half court w/lights								2				4					
Basketball Court-full court														1			
Basketball Court-half court																	
Football/Soccer Fields																	
Football/Soccer Fields w/lights										2	4			7			
Handball Court																	
Indoor Basketball Court-full court														1			
Indoor Gymnasium				1				1									
Indoor Racquetball												1					
Indoor Stage				1													
Informal fields	1	2			1	1		1	1		1		1	1			
Little League Field																	
Little League Field w/lights					3			2									
Roller Hockey Court								1									
Sr. Baseball (overlay)																	
Sr. Baseball Diamond																	
Sr. Baseball Diamond Lights			1		1									1		1	
Shuffleboard Court				2													
Softball Diamond																	
Softball Diamond w/lights																	
Tennis Court		2															
Tennis Court w/lights					2					2	6	2					
Skatepark								1									
Volleyball Court									2		2						
Waterpark									1								
Swimming Pool							1					1		1			
Wading Pool							1					1					
Spa																	
Trails	1	2	3	1		2	1	1	5	3	4	1	4	1	1	1	1
Horseshoe Pit				24					2					1			
Play Area & Apparatus			1		1	1		1	2	2	1	1		1	1	1	1
Tot Play Area	1			1	1				2			1		1		1	1
BBQ Braziers		4	12	1	5	3		3	10	10	10			1	3	5	4
Benches	1			5	4	2			7	6	9	4	4	7		2	7
Bicycle Rack			3				2	1	2	1	1	1	1	6	1	2	1
Concession Stand					2			2	1	1	1			3		1	
Drinking Fountain	1	1	3	2	6	1	2	3	5	2	3	3	1	7	1	2	1
Equip./Maint. Storage				5			1	1	1	1	1		2	1		1	
Group BBQ		4	2		2			1	7					4	1		
Group Picnic					2	1								3			
Parking-Handicapped		2		1	3			3	6	4	6	1	1	10	1	1	
Parking-on site		4		97	100		64	183	231	94	84	24	32	344	9	23	
Picnic Shelter			1	2	2			1	6	1				2			
Picnic Tables		8	17	4	12	4		17	57	10	10			25	3	5	4
Port-a-potty				2													
Public Telephones				1				1									
Restroom Facilities		1	1	1	2	1	1	2	1	1	1	1	2	4	1		
Security Lighting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Signage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stage/Amphitheater																	
Buildings					1				1					2			



Table 10-3
Summary of Park Facilities (CONTINUED)

Rosena Park	Rosena Park East	North Tamarind Park	Northgate Park	Oak Park	Civic Auditorium	San Savaine Park	Santa Fe Park	Seville Park & Amphitheater	Shadow Park	Southridge Park & Don Day Community Center	West Heritage Tot Lot Park	East Heritage Tot Lot Park	Veteran's Park	Veteran's Park West	Village Park	Totals	
3.4	14.3	5	2.5	3	4.02	5.7	1	4.1	7	25.9	0.5	0.5	13.9	9.6	9.1	1,063.84	Acres
					1					1						8	Community Centers
	2		1	1				1							1	13	Basketball Court- full court w/lights
			1			1				1						7	Basketball Court- half court w/lights
																3	Basketball Court-full court
															2	2	Basketball Court-half court
2										2						4	Football/Soccer Fields
																13	Football/Soccer Fields w/lights
																0	Handball Court
										1						1	Indoor Basketball Court-full court
										1						3	Indoor Gymnasium
					1											1	Indoor Racquetball
																2	Indoor Stage
	2	2	1	1		1		1		2			4			24	Informal fields
																0	Little League Field
															2	7	Little League Field w/lights
													2			3	Roller Hockey Court
									1							1	Sr. Baseball (overlay)
									1							1	Sr. Baseball Diamond
													2		1	7	Sr. Baseball Diamond Lights
																2	Shuffleboard Court
				1												1	Softball Diamond
										2						6	Softball Diamond w/lights
										5				4		7	Tennis Court
						4			2							18	Tennis Court w/lights
						1							1			1	Skatepark
																6	Volleyball Court
										1						1	Waterpark
																4	Swimming Pool
																2	Wading Pool
																1	Spa
1	2	1	1	1		1	1	2	2	2	1	1		1	2	51	Trails
																27	Horseshoe Pit
1	1	1	1	1				1		1	1	1	1		1	25	Play Area & Apparatus
1	1	1		2		1		1	1							17	Tot Play Area
9	10	4	4	4		6		5	5				12		9	139	BBQ Braziers
8	8	3	2	2		6	6	3	4	3	5	5	3		5	121	Benches
1	1	1				2			2	1					3	33	Bicycle Rack
										1				2	1	16	Concession Stand
4	2	1	2	2		2	1	2	2	2	1	1	4	5	7	82	Drinking Fountain
									1	2			2	1	2	22	Equip./Maint. Storage
		1	4	2		6		5	2				4		6	51	Group BBQ
		1	4			3							4			18	Group Picnic
2	3	2			3	2		4		3			3	8	2	71	Parking-Handicapped
23	90	63			337	31		90		114			104	178	27	2,346	Parking-on site
1		1	1	1				1	1				3		1	25	Picnic Shelter
9	10	14	10	12		24		18	10				30		16	329	Picnic Tables
										1						2	Port-a-potty
																3	Public Telephones
1	1	1		1	1	1	1	1	1	2			2	1	1	35	Restroom Facilities
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes		Security Lighting
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes		Signage
								1								1	Stage/Amphitheater
													1			5	Buildings



Existing Deficiencies: Recreation Demand Analysis

In 1998, as part of its Parks and Recreation Master Plan, the City commissioned an analysis of existing and future demand for various types of park facilities. The study uncovered a number of deficiencies and projects future needs, enabling the City to adequately plan for future facilities. A complication in park planning for Fontana is the fact that major portions of areas identified as “under-served” in the Master Plan are actually in unincorporated County land. The spill-over demand from these areas creates extra pressure on existing parks within Fontana.

- ◆ **Community Parks** – Due to the existence of a large youth population and the popularity of organized sports, there is currently more demand for community parks than neighborhood parks. The eight existing parks serve most of the incorporated City. Two of the most popular parks – Martin and Bulik – have been expanded. Any annexation of the unincorporated area adjacent to Fontana on the west, and potential development in North Fontana, will create the need for additional parks.
- ◆ **Neighborhood Parks** – There is a current deficiency in total acreage for these “walk-to” parks, even with the parks that are being built (see Figure 10-3). In under-served areas, joint-use agreements with the local school districts should be continued and monitored.
- ◆ **Under-served Areas** – Analyzing existing facilities and service area analysis, the 1999 Master Plan underscored four areas that are under-served by park facilities (depicted in Figure 10-3). Of these areas, only the North Fontana Area lies completely within City limits. The Jurupa North area is a residential neighborhood south of the I-10 Freeway located partially in the City and in the Sphere of Influence area. Foothill South and West Fontana lie in County land and are under-served by both community and neighborhood parks. Assuming future population growth, build out of undeveloped areas, and annexation of unincorporated areas, the following deficiencies were noted:
 - Jurupa North Area: Three neighborhood parks
 - West Fontana Area: Two neighborhood and 1 community park
 - Foothill South Area: Two neighborhood parks
 - North Fontana Area: Three neighborhood parks

These facts further underscore the need for more neighborhood and community parks since residents from the under-served, unincorporated areas put a further strain on athletic fields within existing community parks.



- ◆ **Deficiencies of Specific Park Facilities** – To assist in the planning process, the Master Plan conducted a facilities needs assessment in 1999 (summarized in Table 10-4). The study's authors assumed that approximately 900 single-family homes would be built per year through 2010 and that additional facilities would be provided through the specific plan approval process. It should be noted that these estimates are intended to be general guidelines and should be changed to accommodate changing demand identified in future Community Outreach Programs.

The Park Facility Summary shows deficits in some of the areas identified as most desirable by the residents in the community attitude survey. These include informal fields, group BBQs, picnic shelters, and play areas. Since the adoption of the Master Plan in 1999, however, demand for organized sports fields has grown, with particular emphasis on soccer, football and baseball fields. These large-scale facilities are best accommodated in community, rather than neighborhood, parks. Therefore, future park planning should carefully consider inclusion of these facilities as a condition of approval.

Planning for the Future

Determining future park and recreation demand is an on-going process that considers changes in population growth, user preferences and city policy. Current demographic trends favor more facilities for young people and consequent demand for organized sports facilities within community parks. The City takes a proactive role in park planning by collecting fees, acquiring land and designing the parks themselves. Until decisions are made about the unincorporated areas bordering Fontana to the west, projecting demand accurately will be difficult.

Under-Served Areas & Park Deficiencies

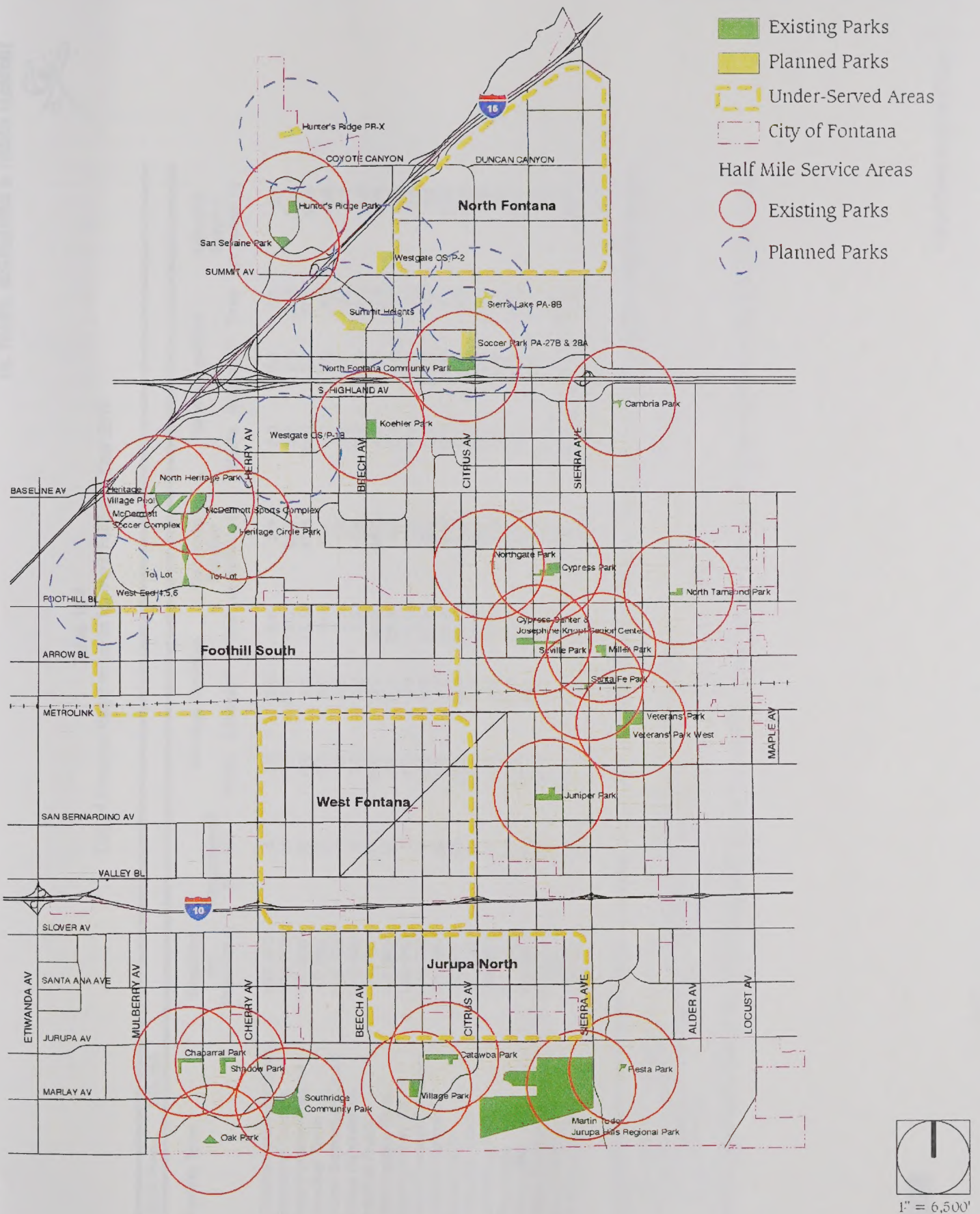




Table 10-4
City of Fontana Requirements for Park Facilities Year 2010

2010 Pop. 145,058 ¹										
Facility Type	Standard per Population	Requirement for 1997	Existing Facilities			Resulting Surplus or Deficit (-)*	Planned Facilities			Adjusted Surplus or Deficit (-)
			Parks	Schools**	Total		Parks	Schools**	Total	
Community/Senior Center	1/25,000	6	8.0	0.0	8.0	2.0	0.0	0.0	0.0	2.0
Basketball Court +	1/12,700	11	16.0	57.0	73.0	62.0	5.0	22.0	27.0	89.0
Multi-Purpose Field ++	1/5,000	29	6.0	9.5	15.5	-13.5	22.0	5.0	27.0	13.5
Handball Court	1/8,900	16	0.0	8.0	8.0	-8.0	0.0	4.0	4.0	-4.0
Indoor Basketball Court	1/36,200	4	1.0	4.5	5.5	1.5	0.0	2.5	2.5	4.0
Indoor Gymnasium	1/23,000	6	3.0	4.5	7.5	1.5	0.0	1.5	1.5	3.0
Informal Fields	1/3,100	47	25.0	8.0	33.0	-14.0	4.0	1.5	5.5	-8.5
Little League Field	1/6,500	22	8.0	17.0	25.0	3.0	2.0	3.0	5.0	8.0
Roller Hockey Court	1/20,000	7	4.0	0.0	4.0	-3.0	1.0	0.0	1.0	-2.0
Adult Baseball Diamond	1/18,700	8	10.0	3.5	13.5	5.5	1.0	1.0	2.0	7.5
Softball Diamond	1/7,100	20	9.0	6.0	15.0	-5.0	0.0	4.0	4.0	-1.0
Tennis Court	1/2,600	56	26.0	10.0	36.0	-20.0	2.0	6.0	8.0	-12.0
Volleyball Court	1/7,300	20	7.0	4.5	11.5	-8.5	0.0	6.5	6.5	-2.0
Swimming Pool	1/27,800	5	4.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0
Play Areas	1/1,800	81	34.0	20.5	54.5	-26.5	7.0	9.0	16.0	-10.5
Group BBQ	1/1,500	97	59.0	0.0	59.0	-38.0	0.0	0.0	0.0	-38.0
Picnic Shelter	1/5,000	29	30.0	0.0	30.0	1.0	0.0	1.0	1.0	2.0
Picnic Tables	1/450	322	337.0	0.0	337.0	15.0	14.0	10.0	24.0	39.0
Restroom Facilities	1/5,000	29	31.0	0.0	31.0	2.0	9.0	3.0	12.0	14.0

Notes:

* Surpluses/deficits are based on inventory as of February/March 1998.

** School facilities are discounted by 50 percent, due to limited accessibility to the general public.

+ Half court basketball courts adjusted (i.e., 2 half courts = 1 full court)

++ Soccer or Football

¹ Source: City of Fontana Building and Safety Division; TNCI.



ISSUES, GOALS, POLICIES & ACTIONS

ISSUE #1: PARKS FOR DIVERSE NEEDS

How can the City ensure that its parks and recreation facilities respond to the diverse and changing needs of its population?

Discussion: As Fontana's population continues to change, so will its needs for different types of parks and recreation programs. Currently, the demographics of the City underscore the need for large-scale, organized sports fields. Being a City with lots of young families and children, after-school programs and aquatics programs are also in demand. The challenge is to stay in touch with residents and use pro-active planning to be several steps ahead of them.

GOAL #1.1:

Our City's parks and recreation facilities meet the diverse needs of all segments of our population.

Policies:

- 1) A wide variety of parks and recreation facilities, including regional, community, neighborhood and sub-neighborhood parks, shall continue to be provided throughout the City.
- 2) The design of all parks should meet the particular needs of the specialized populations they serve, such as seniors, young adults, families and children.
- 3) Cultural facilities, such as libraries, community centers, exhibit areas, and performance areas, shall be included in the planning and design of parks where feasible.
- 4) Barrier-free access to all parks shall be provided.
- 5) The City shall continue to operate and expand its After-School Program.

Actions:

- 1) Update the Parks, Trails and Recreation Master Plan every five years.
- 2) Continue the periodic Community Outreach Program, incorporated into the Master Plan, to evaluate resident recreation needs and opinions.



- 3) Prepare a phased strategy for developing new facilities including an indoor aquatics center, indoor basketball courts, lighted baseball fields, Pop Warner football fields and a second Skate Park.
- 4) Pursue additional funding sources for the improvement of the Mary Vagle Museum and Nature Center.
- 5) Continue to acquire land for future parks and set up a program for land banking for future recreation needs.

GOAL #1.2:

Our parks and recreation programs incorporate the latest recreational features, responsive to population trends and citizen input.

Policies:

- 1) Community input on parks, recreation facilities and programs shall be gathered and evaluated on a regular schedule.
- 2) The City shall continue to take an active role in the design of new parks.
- 3) Each park within the City should provide a variety of activity options for users, including active and passive uses.
- 4) The City shall reevaluate the design improvements, equipment and amenities of all of its parks as part of the periodic update of the Parks, Recreation and Trails Master Plan.
- 5) The City shall give priority to the acquisition of large parcels for the development of Community Parks that accommodate athletic fields.

Actions:

- 1) Include park design charettes in Community Workshops.
- 2) Continue to evaluate recreation needs, programs and park design through the Public Services Department's use of surveys, on-site user evaluations and web-based forms.
- 3) Establish and maintain a collaborative park planning program with private, non-profit groups such as the YMCA, Boys' and Girls' Clubs, Boy and Girl Scouts, Pop Warner, Little League, churches and private sector interests as well.



ISSUE #2: PARK PLANNING IN NEWLY DEVELOPED AREAS

What should the City do to ensure that newly developed areas meet or exceed existing park standards?

Discussion: The largely undeveloped northern portions of Fontana provide the City with an excellent opportunity in park planning. It is the City's goal not only to maintain existing standards for park acreage but also to design parks with the type of facilities that meet the needs of surrounding development. In addition, the City will strive to make sure that new parks and recreation facilities are well-connected to the existing and future bicycle and recreational trail network. To meet these goals, the City works with developers through the project review process.

GOAL #2:

Adequate parks, recreation facilities and after-school programs are provided in newly developed areas of our City.

Policies:

- 1) The City shall maintain park standards of 2 acres per thousand residents for community parks and 3 acres per thousand residents for neighborhood parks.
- 2) Newly developed parks should be connected, wherever practical, to the existing and future bicycle and recreational trail system.

Actions:

- 1) Initiate a long-term program to correct park deficiencies.
- 2) Continue to implement the local park ordinance through developer dedication of parkland or in-lieu fees.
- 3) Ensure adequate provision of recreation facilities through the development review and approval process.

ISSUE #3: PARK SAFETY AND MAINTENANCE

What can the City do to ensure that its parks and recreation facilities are as safe and well-maintained as possible?

Discussion: Parks are among the most highly desired amenities that a city can provide, and their enjoyment depends, in large measure, on attention to detail. First and foremost, they must be safe places for the enjoyment of all members of the community. This means that facilities and equipment must be well-maintained, that landscaping is carefully planned and maintained with security in mind, that organized activities



are well-supervised, and that ample lighting exists for night use. As park and recreation facilities are used many days of the year, their ability to provide enjoyment depends on the quality and care with which facilities are provided and maintained.

GOAL #3:

Our parks will be safe and well-maintained.

Policies:

- 1) Parks shall be designed in accordance with contemporary safety standards and "CPTED" (Crime Prevention Through Environmental Design) principles.
- 2) Each park within the City shall be evaluated for safety and maintenance on an established schedule.

Actions:

- 1) Conduct evaluation of park improvements to test for safety compliance and effective maintenance.
- 2) Prepare and adopt a "CPTED" ordinance covering public spaces, including parks.
- 3) Continue to maintain a proper schedule of facility management.
- 4) Establish a volunteer program for park maintenance.
- 5) Continue to reinvest Capital Replacement funds into park infrastructure where identified.

ISSUE #4: JOINT-USE AGREEMENTS WITH SCHOOL DISTRICTS

What is the most efficient way for the City and local school districts to develop joint-use agreements for recreational facilities?

Discussion: The sports fields and other facilities of local schools provide residents with additional opportunities for recreation and help cities meet their recreation needs. Since this property belongs to the school district and not the City, there are liability, maintenance and access issues to consider.

The City of Fontana currently has a joint-agreement with the local school district for joint-use of fields, but demand is greater than supply. About 25% of schools' field time is serving community recreation needs, primarily for after-school recreation programs. City-run leagues do not use school facilities due to problems with field conditions, lighting, restrooms, parking, and scheduling. Greater use of school facilities by



the City will require renegotiation of the joint-use agreement and careful coordination between the City and the school district.

GOAL #4:

Our parks are developed in conjunction with school facilities and other agencies to maximize recreational facilities in our City.

Policies:

- 1) The City should enter into joint-use agreements with the appropriate school district on all feasible school sites in the City.

Actions:

- 1) Every existing and planned school facility will be evaluated for the potential of joint use/development with the City.
- 2) Develop a program to address the problems associated with the use of school facilities – field conditions, lighting, availability of restrooms and parking.
- 3) Establish agreements with the local school districts for the joint use of school recreation areas and, where feasible, reciprocal use of City parkland by schools.

ISSUE #5: PARK ACCESSIBILITY

What can the City do to ensure that parks are conveniently located and accessible to all segments of the population?

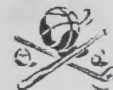
Discussion: One of the most valuable attributes of parks is accessibility. Neighborhood parks should be centrally located within residential areas, community parks should be integrated conveniently in key points within the City, and regional facilities should be visible and conveniently accessible from major arterials. Fontana's goal has been to connect community and recreation facilities to each other and to adjoining development. This idea of connectivity is reflected in the Parks and Trails Master Plan and in the design policies for new residential development found in the Community Design Element.

GOAL #5:

Our parks and recreational facilities are conveniently located and accessible to existing and future residents of our City.

Policies:

- 1) The City shall continue to locate parks and recreation facilities within convenient walking and biking distance of all neighborhoods.



- 2) Parks and recreation facilities should be integrated with the Master Plan for Trails and Bikeways.
- 3) City standards for park acreage shall be applied to future annexation areas.

Actions:

- 1) Based on deficiency areas within the City, prepare a plan for acquiring additional park acreage/facilities to address the need.
- 2) Prepare templates for proper off and on-site signage for all parks.
- 3) Initiate a sign installation program.
- 4) Negotiate an agreement with the County of San Bernardino to provide parks meeting City standards within areas of eventual annexation into the City.

COMPONENTS OF THE PLAN: ALL ABOUT TRAILS & BIKEWAYS

Just as there are different types of parks for which to plan, there are also different types of trails and bike paths for different uses. The off-street recreational trail system combines hiking, equestrian and Class 1 bike trails. Such trails are primarily used for recreation, but can also be used for commuting or to provide access to community facilities, such as the Metro Link Station or schools. Dedicated bike lanes, or Class 2 bikeways, consist of a dedicated lane along the pavement edge of streets and provide an alternative to the automobile throughout the city. Pedestrian access and recreation is provided through the City's sidewalks and hiking trails. The following trail standards generally apply:

- ◆ **Equestrian/Hiking Trails** – wide enough to allow two horses to pass; minimum 10' wide and 12' vertical clearance from overhanging branches.
- ◆ **Class 1 Bicycle Trail -Hiking/Biking Trails** – combined trail with improved surface of concrete or asphalt for the bike and an unimproved surface for jogging; minimum width for two bikes is 8', 5' for one bike, and 4' for hikers.
- ◆ **Class 2 Bikeway** - for use along roadways in urban settings; minimum land width of 4' between the gutter or parking lane and the auto travel lane.
- ◆ **Joint-Use Trails** – accommodates joggers, hikers, bicyclists, and equestrians using a separated trail; bikeway is asphalt or concrete (minimum 12' for bikers and joggers); the riding/jogging section is separated from the bikeway by a 3' landscaped median.



- ◆ **Class 3 Bicycle Routes** – connect Class 1 and 2 Bikeways; usually used only for a few blocks, often in developed areas.

More detail on all facilities and trails for these components is provided below.

Bicycle

The bicycle is experiencing a substantial growth in popularity. Persons of all age groups have taken to the riding of bicycles for recreation, exercise and transportation. Many individuals are discovering that bicycle usage, particularly for short and intermediate trips, provides a viable and economic alternative to the automobile.

The Bikeway Master Plan (Figure 10-5) promotes a safe and efficient network of bike paths for recreation and commuter use in the City of Fontana. The Bikeway Master Plan illustrates the location of existing and proposed bikeways. Class I bike paths have been constructed along the powerline rights-of-way through the Southridge and Village of Heritage developments. Additional Class I bike paths are planned in utility corridors at the southern and northern portions of the City.

The planned bicycle network is not a continuous network. Efforts should be made to expand the network and provide continuity so that bicyclists could connect to the Class I bikeways via other on-street bicycle lanes or routes. Due to the developed nature of Fontana and the cost involved in right-of-way acquisition, a concentrated effort should be made to develop safe dual use of existing roadways. The use of parks, drainage channels and utility easements should also continue to be explored.

Bicycle Classifications

The State of California categorizes bicycle facilities into the following three classifications according to the degree of exclusiveness with which the paths are preserved for bicycle use. The designation of bikeways as Class I, II and III should not be construed as a hierarchy of bikeways. Each class of bikeway has its appropriate application.

Class I Bikeways

A Class I Bikeway, referred to as a "bike path," is a separate travel-way for bicyclists. They are typically used to serve corridors not served by streets and highways or where wide rights-of-way exist, permitting such facilities to be constructed away from the influence of parallel streets. They provide opportunities not offered by a road system. The bike paths can either provide a recreational opportunity, or in some instances, can serve as direct high-speed commute routes if cross flow by motor vehicles can be minimized. The most common applications for bike paths are along rivers, ocean fronts, canals, and utility rights-of-way, within



college campuses, or within and between parks. They may also be provided as part of planned developments. The minimum paved width for a two-way bike path should be 8 feet. The minimum paved width for a one-way bike path should be 5 feet. A minimum 2-foot wide graded area should be provided adjacent to the pavement. It may be necessary to install barrier posts at entrances to bike paths to prevent motor vehicles from entering.

Class II Bikeways

Class II Bikeways, also referred to as "bike lanes," are intended to delineate the right-of-way assigned to bicyclists and motorists, and to provide for more predictable movements of each. Bike lane signs and pavement marking help define the bikeway. A more important reason for bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. This can be accomplished by reducing the number of lanes, prohibiting parking on bike lane streets, or striping. The striped bike lanes should have a minimum pavement width of 4-feet between the gutter or parking lane and the auto travel lane and are separated from the auto travel lane by a solid white stripe, which becomes dashed approaching intersections where right-turning vehicles must cross into the bike lane.

Class III Bikeways

Class III Bikeways, also referred to as bike routes, are shared facilities that serve either to provide continuity to other bicycle facilities, or designate preferred routes through high demand corridors. Bike routes are normally shared with motor vehicles on the street, or with pedestrians on sidewalks. In either case, bicycle use is secondary.

There is no minimum width for Class III bikeways. Width is dependent upon many factors including volume and character of vehicular traffic on roads, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions. There are no special lane markings and the roadway is identified as a bicycle facility only by "Bike Route" signs placed on vertical posts.

Bicycle Parking

The provision of bicycle parking facilities at appropriate locations is an integral part of the bikeway plan. With the exception of schools, playgrounds, libraries, and a few other public places, parking facilities for bicycles in Fontana are almost non-existent.

Consideration should be given to requiring businesses to provide bike parking as well as motor vehicle parking and the installation of bicycle stands in public and private parking lots. Amendments to the Fontana Municipal Code may be necessary. Service organizations and other institutions should also be encouraged to provide bicycle racks in



appropriate locations as a public service. In addition, major developments should be encouraged to install shower facilities. These facilities are not only useful to employees traveling to and from work by bicycle, but also for employees who elect to participate in mid-day recreational activities.

Bicycle Safety Programs

Programs teaching safe bicycling practices that encompass both safety education and information about the nature of bicycling should be encouraged. A clarification of the rules and regulations governing bike riding should be encouraged. Bicycle safety education is conducted in the Fontana City School system. Bicycle regulation enforcement is conducted by the Fontana Police Department.

Pedestrian Facilities

In the past, transportation in cities was primarily based on the convenience of walking. The advent of motorized transportation, first the train and then the automobile, has changed this perspective. Pedestrians are now in competition with automobiles for urban space in downtown areas. Walking is often the only means of transportation that can satisfy the many short dispersed trip linkages required in a city's central business district. Even in residential neighborhoods, pedestrians are finding it increasingly more difficult to cross streets safely. Safety to pedestrians as well as an amenable pedestrian environment are important quality of life factors in a city. It is important to have a safe pedestrian system that links commercial residential and open spaces land uses. Such a system contributes to a sense of cohesiveness within a city.

Pedestrian circulation and recreation in Fontana are primarily provided for on the sidewalk. Sidewalk access is sometimes reduced by the intrusion of various sidewalk impediments such as benches, newspaper boxes, signs, plantings, and garbage cans. Sidewalk furniture often appears in clusters at intersection corners, the most critical points in the pedestrian circulation system. Corners are where pedestrians wait for and potentially come in conflict with traffic.

To help improve the safety of pedestrians and make all roadways user friendly, the following improvements could be made after studying site specific, and area wide problems:

- Sidewalk widening,
- Limit alleys for pedestrian use,
- Use of special paving or markings at pedestrian/vehicle interfaces,
- Improve sidewalk signing,



- Improve signal phasing and pedestrian flow patterns at intersections,
- Use turning restrictions on vehicles at intersections,
- Provide sidewalk curb cuts for the physically challenged,
- Use hearing impaired cross walk signals,
- Increase the number of street trees along sidewalks to provide shade,
- Provide for safe, well lighted rest areas such as shaded benches or planter boxes, and
- Construct landscape planter between sidewalk and street travel to enhance pedestrian safety.

In addition to improving the existing pedestrian system, the following planning guidelines could be used in the development process to help insure the future success of the pedestrian system:

- Provide auto-free pedestrian arcades, which are dedicated to pedestrian traffic and provide pedestrian-oriented adjacent uses, in new developments,
- Plan for ground floor land uses which enhance the pedestrian environment,
- Use colored and textured pavement treatments,
- Prepare a street furniture plan, e.g., transit stops, signs, trash receptacles, newspaper stands, and drinking fountains,
- Incorporate plazas in new development designs,
- Provide pedestrian pathways in large residential developments,
- Develop a standard for meandering walkways, and
- Vary the width of sidewalk and parkway dimensions to eliminate the monotony of one standard throughout the City.

Fontana has many scenic points of interest for the recreational pedestrian. "Wellness walks" through the Jurupa Hills, historic areas, and specific plan communities could provide visually stimulating means of recreation with varying degrees of difficulty. Such a program could be developed through the pedestrian grant program.

EXISTING CONDITIONS: LINKING FONTANA INTERNALLY AND EXTERNALLY

The planning and construction of an off-street, multi-use trail system is an on-going process and a long-term planning objective. Trail improvements and maintenance are costly and often under-funded since most of the capital improvements come from the City's general fund. The



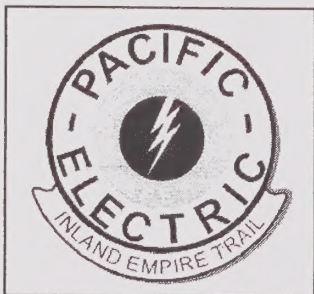
recreational trail system, which includes equestrian, hiking and Class 1 bike trails, is separated from automobile traffic and follows natural open space features, rail right-of-ways, flood control channels, and utility easements. Although primarily designed for recreational uses, the system, depicted in Figure 10-4, *Regional Recreational Trails*, can be used to provide safe access to schools and regional transportation nodes such as the MetroLink Station, and other focal points within the City. The Bicycle Trail Master Plan depicted in Figure 10-5, *Bicycle Trails*, consisting of Class 2 or dedicated bike lanes, is used for small trips, recreation or commuting within the City. City of Fontana trails are strengthened by integration into the San Bernardino County system. Key components are described below.

◆ **Active Trails within the San Bernardino County Trail Master Plan –**

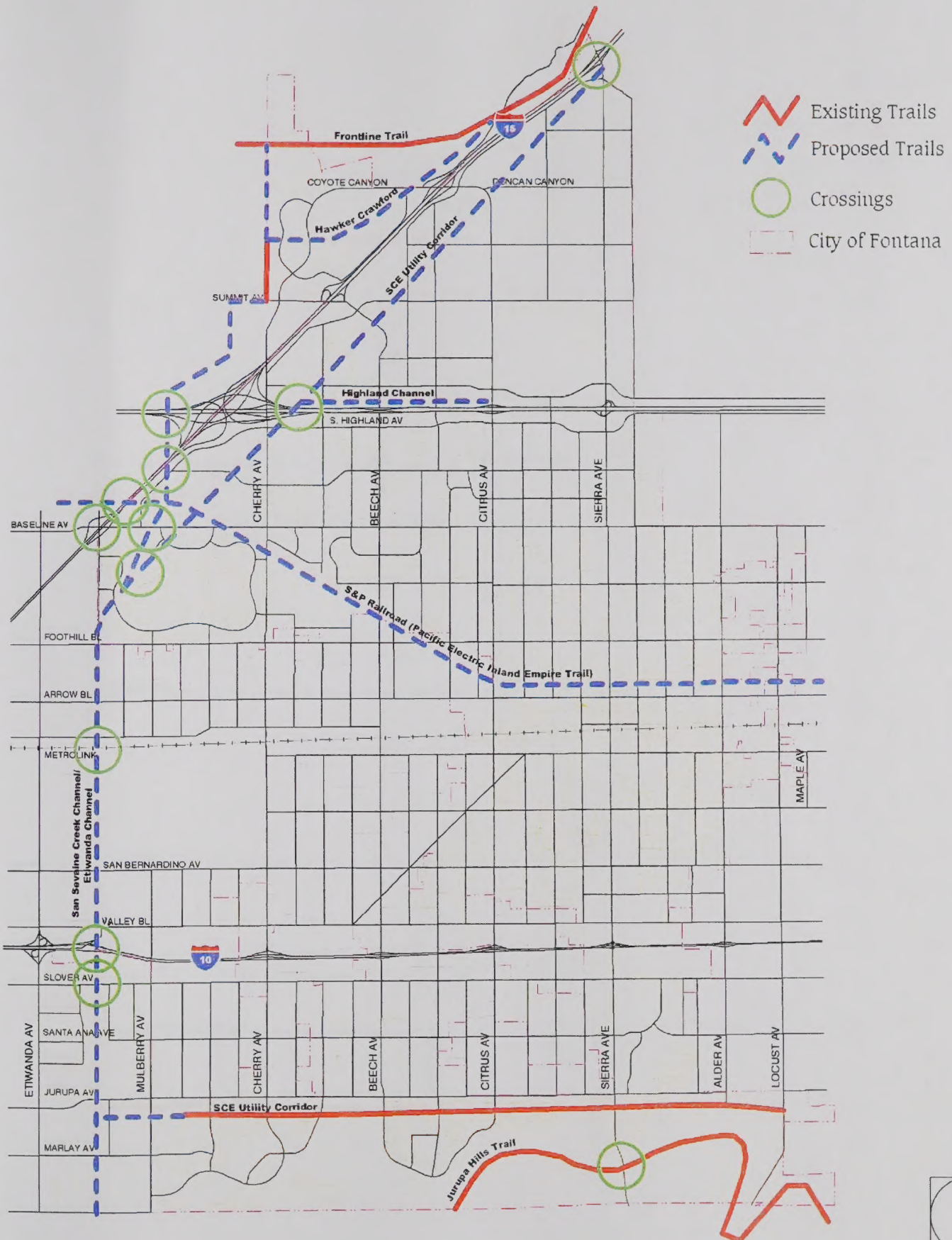
- **Jurupa Hills Trail** – a trail system that traverses the Jurupa Hills and connects the Martin Tudor-Jurupa Hill Regional Park to the Santa Ana River Trail in Riverside County.
- **Frontline Trail** – provides an east-west connection along the base of the San Gabriel Mountains between San Antonio Creek Trail on the west and the Lytle Creek Trail that extends north from the City, providing linkage to the Pacific Crest Trail.
- **Baseline Trail** – an on-road trail that connects San Antonio Creek Trail on the west to the Cajon Creek Trail between Rialto and San Bernardino. Baseline Avenue borders a number of specific plans and is wide enough to accommodate a Class 2 bicycle trail.

- ◆ **San Sevaine Creek Water Project** – Located on the western edge of the City, this drainage basin received federal assistance for environmental enhancements and development of a multi-use trail. This portion of the system connects with the Frontline Trail to the north and runs south to the Riverside County line.

- ◆ **Southern Pacific Railroad Right-of-Way (part of the Pacific Electric Inland Empire Trail)** – A great opportunity for an extensive regional trail system exists within the abandoned Southern Pacific Railroad right-of-way, and a county-wide planning effort, headed by Rancho Cucamonga and SANBAG (Association of San Bernardino County Governments) is already underway. The Pacific Electric Inland Empire Trail Master Plan, a 21-mile right-of-way that runs west to east through Claremont, Montclair, Upland, Rancho Cucamonga, Fontana and Rialto, was adopted in November 2000. This regional trail would serve as a multi-use trail designed to provide recreational connections within the county and to celebrate the history of the famous Pacific Electric Railroad.



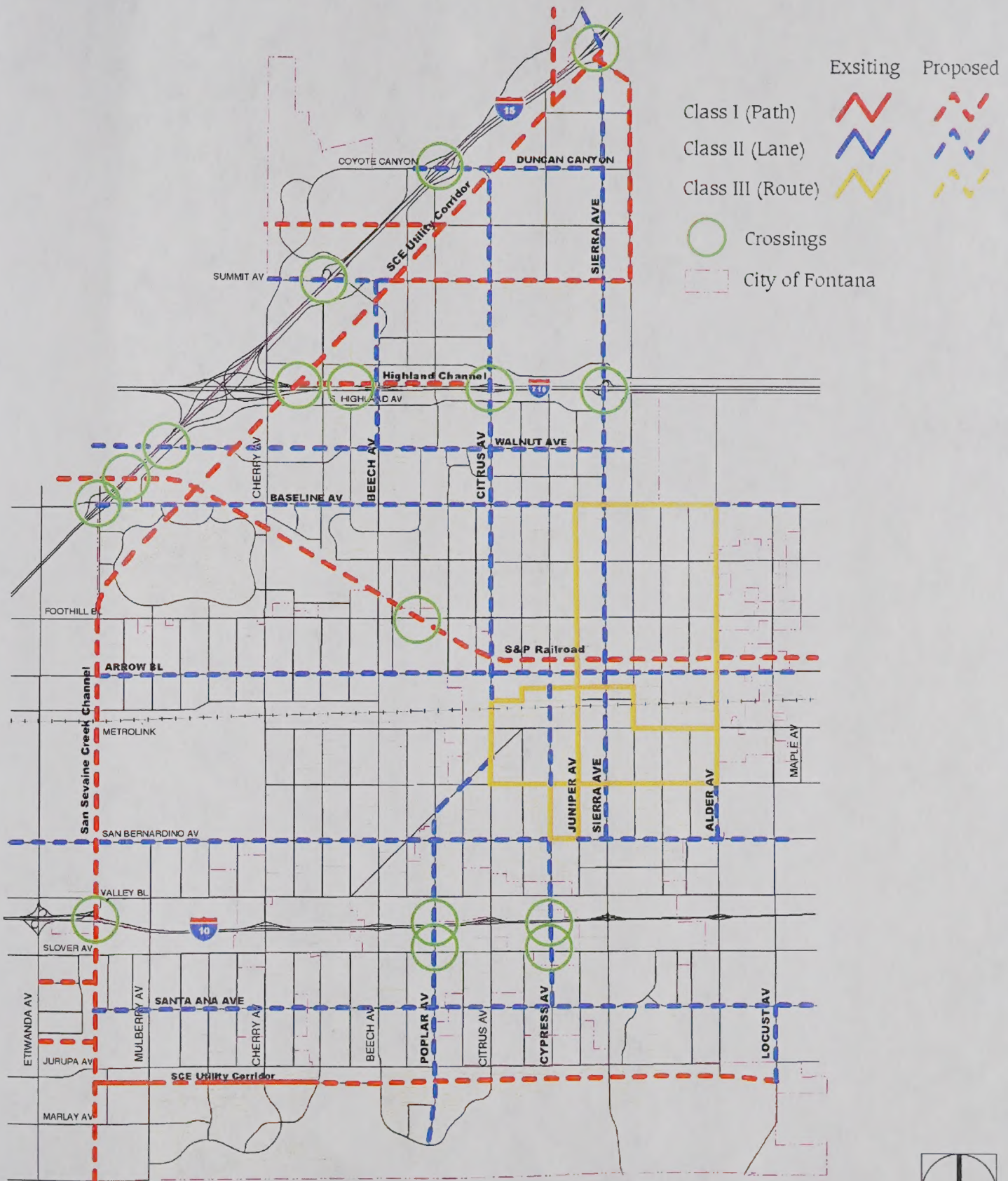
Regional Recreational Trails



Legend
County
District
City



Bicycle Trails



1" = 6,500'



Fontana's leg of the Pacific Electric Inland Empire Trail runs west to east through the City and would provide excellent access to the civic center, employment centers and other public facilities. A Class 1 bikeway would be an appropriate use for the trail. Implementation of the trail will include improvements at trail crossings, decisions about the design theme, landscaping and operation and maintenance. Safe pedestrian and bicycle crossings are of particular concern, and any existing bridges should be restored as a safe route over busy arterials. The Fontana portion of the trail would include the upgrade of eleven Class 3 crossings that require signalization.

- ◆ **Walnut Ave. Greenway** – Designated as a greenway route, this portion runs east/west between Highland and Baseline Avenues and connects a series of parks and schools.
- ◆ **Highland Channel Maintenance Road** – This road will provide a connection from North Fontana Park to the recreation trail in the Southern California Edison right-of-way.
- ◆ **Rancho Cucamonga Trail Implementation Plan** – Adopted by the City of Rancho Cucamonga in 1991, this master plan identifies a number of trails that could strengthen the growing network of regional recreation trails and bikeways. Opportunities for connection exist in the LA Dept. of Water & Power Utility/Flood Control Corridors.

Opportunities for Connections

Fontana's strategic location as a regional transportation corridor provides opportunities and challenges. The economic opportunities offered by major freeways systems are obvious; the challenge is to maintain connectivity throughout a community intersected by major grid system of arterials. A well-maintained and integrated trail system plays a critical role in linking the community internally and to the region, providing residents with viable alternatives to the car and healthy options for recreation.

The City of Fontana also has the opportunity to improve and enhance its off-street recreational trail system and link it with neighboring cities and the County. Not only will the improved Multi-Use Trail provide access to existing and future open space and community facilities, it will provide spectacular views of adjacent mountains and hills and may contribute to reduce air pollution.

Consistent With Previous Planning Efforts

The 1990 Circulation Element supports bicycle use by establishing routes and storage areas. The plan also seeks the separation of biking, hiking and equestrian uses from automobile traffic by calling for the use of easements, rail rights-of-way, creek channels and utility corridors to develop an integrated multi-use trail system.



ISSUES, GOALS, POLICIES & ACTIONS

Consistent with previous planning efforts, the City of Fontana will seek to expand its recreation and bike trail system to improve access and mobility within the City as well as to the regional trail system currently being implemented.

ISSUE #1: SUPPORTING BICYCLE, EQUESTRIAN AND PEDESTRIAN USE

How can the City most effectively support bicycle and trail use?

Discussion: Bicycle, equestrian, and pedestrian trail use is most successful when routes are clearly marked, convenient and safe. The City has designated an integrated network of bicycle and recreational trails set forth in the Parks, Trails and Recreation Master Plan. This system functions internally, by connecting neighborhoods to each other, and to community facilities, and externally, to the County's regional trail system.

For bike paths, routes have to be planned in tandem with new development and, in some cases, retrofitted within existing development. For regional recreation and multi-use trails, planning and funding have to be coordinated with neighboring cities and the County. Where these paths cross existing built-out areas, capital improvements for safety and flow must be completed.

GOAL #1:

There is extensive use of non-motorized transportation, such as bicycles, equestrian, and pedestrian activity, throughout our City for recreation, access to community facilities, and even local commuting.

Policies:

- 1) The City's bikeways and trails network shall be phased as an integrated system that provides access to community facilities, commercial areas and the regional multi-use trail system.
- 2) All new developments on designated routes shall provide bicycle and pedestrian routes linked to adjacent facilities.
- 3) Routes accessible for disabled persons shall be provided that link public facilities and commercial areas to residential neighborhoods.
- 4) Adequate and secure bicycle storage facilities shall be provided for new institutional and non-residential development.



- 5) Bicycle racks shall be provided in all public facilities and in activity centers.

Actions:

- 1) Update the Bikeways Master Plan for the City at five-year intervals.
- 2) Establish bikeway and trail guidelines for use in applying conditions of approval for all major new development.

ISSUE #2: CONNECTING TRAILS TO THE REGION

How can the City most effectively link its trail network to the regional system of bikeways and multi-use trails?

Discussion: Fontana is an important link in the San Bernardino County Trail Master Plan. In the south, the Jurupa Hills Trail traverses the Jurupa Hills to connect the regional park with the Santa Ana River Trail in Riverside County. This trail then winds southwest all the way into Orange County, ending at the ocean in Huntington Beach. The Frontline Trail in the north provides an east-west connection along the base of the San Gabriel Mountains. The abandoned Southern Pacific Railroad right-of-way that runs diagonally across the center of the City is part of the county-wide Pacific Electric Inland Empire Trail.

These regional trail connections provide an excellent opportunity for the City to utilize its tremendous view corridors, provide its residents with better connections to the region and to coordinate its planning efforts with neighboring jurisdictions.

GOAL #2:

Bicycle and trail systems are connected to neighboring city facilities and to the regional network of trails and bikeways.

Policies:

- 1) The City shall complete the planning for its portion of the regional network of trails and bikeways.
- 2) The planning of bikeways and trail systems shall continue to be conducted in coordination with neighboring cities and the County of San Bernardino.
- 3) Trail design should incorporate opportunities for scenic views and access to open space.

**Actions:**

- 1) Adopt, budget and schedule the improvement of the Jurupa Hills Trail for clearer access, environmental protection and connection to the Santa Ana River Trail.
- 2) Adopt a phased program for the completion of Fontana's portion of the Pacific Electric Inland Empire Trail.
- 3) Coordinate the extension of the Rancho Cucamonga Trail Implementation Plan into Fontana.
- 4) Connect Beech Avenue to the Santa Ana River Trail.
- 5) Develop a funding program for the long-term completion of Fontana's portion of the regional trail network.

ISSUE #3: TRAIL MAINTENANCE

How can the City best maintain its trail system to high standards without undo strain on the General Fund?

Discussion: Bicycle and recreational trail construction and maintenance continue to be an under-funded activity for several reasons. These types of improvements are quite expensive and are often funded from the City's General Fund. As such, trail and bikeway improvements must compete with other City priorities. There are no recurring funding sources to support long-term trail maintenance and capital replacement. Finally, citizen surveys indicate that parks and organized sports facilities are currently a higher priority. The warm climate of the area much of the year makes biking and hiking a somewhat less popular activity than park and aquatic uses.

This does not mean that bike and recreational trails planning should not be completed and implemented. One of Fontana's greatest strengths is its access to open space and potential for regional links. The largely undeveloped northern part of the City provides extensive opportunities for bike and trail systems linking residential development to parks, activity centers and open space. However, completing the entire trail system should be viewed as a long-term, yet important, planning objective.

**GOAL #3:**

Proper design, development and maintenance standards for bikeways and trails are used for all trails and bikeways within our City.

Policies:

- 1) Contemporary design standards for the various classes of bikeways as well as trails shall be incorporated into the City's Parks, Recreation and Trails Master Plan and the Circulation Element of the General Plan.
- 2) The City Logo shall be placed at key entry points to and along the bicycle and trail system.
- 3) Installation and/or replacement of the bikeway and trail system should be carried out as part of the City's Capital Improvement Plan.
- 4) Maintenance funding strategies should be secured prior to construction of new facilities.

Actions:

- 1) Adopt design guidelines and sign program for each class of bikeway and pedestrian trails.
- 2) Apply City-adopted design guidelines for bikeways and trail through the development approval process.
- 3) Implement the agricultural design theme recommended for the Fontana portion of the Pacific Electric Inland Empire Trail.

ISSUE #4: SAFE TRAIL USE

What should the City do to ensure that its trail system is as safe as possible?

Discussion: Safety is always a concern when planning and maintaining a City's bikeways and trail system. The proposed recreation trail system primarily follows the utility and flood control corridors while the proposed bicycle plan provides for a system of safe routes using the existing street network. Of particular concern are areas where bicycle routes run along existing or future streets, where school children typically walk to schools or parks and where trails or bikeways must cross streets. Less costly solutions involve proper signage and delineation of access; more costly alternatives exist where grade separation must be constructed.



GOAL #4:

Our City's bikeways and trails are uniformly safe and accessible.

Policies:

- 1) Separation of the bikeway and trail system from traffic and roadways should be established wherever possible.
- 2) Multi-use trails shall provide clear separation of hikers, joggers, and equestrians.
- 3) Safety features for cyclists and pedestrians, such as separated grades, lighting, buffers, bollards, and landscaping should be used wherever necessary.

Actions:

- 1) Prepare schedule and budget for the capital improvements necessary to ensure the safe junction of current or future bike and trails with existing or proposed streets.
- 2) Develop a consistent sign program for the City's bikeway and trail network.

ISSUE #5: USE OF UTILITY AND FLOOD CONTROL CORRIDORS

How can the City most effectively use utility easements and flood control channels to expand its trail network?

Discussion: For safety, enjoyment and aesthetic reasons, it is desirable to separate bikers, joggers, hikers and equestrian users from cars. In this area, Fontana has the good fortune to contain a number of abandoned railroad rights-of-way, utility easements and flood control channels for this purpose. In fact, the majority of the proposed recreational trails are planned along these routes.

The City has already complete working drawings of the San Sevaine Creek Bike and Recreational Trails that include typical channel sections, road crossings at Baseline Avenue, West Liberty Parkway and North Heritage Circle. Over time and as funding permits, the City will continue to implement the proposed trail system for other areas. Major consideration must be given to safety concerns related to slope changes, grade crossings, and storm water.

**GOAL #5:**

Our system of bikeways and trails is benefited by efficient use of utility easements, flood-control easements and railroad rights-of-way.

Policies:

- 1) The City should seek use of easements and rights-of-way from owners for use in the bike and trail network.
- 2) The City shall coordinate with neighboring municipalities and the County for the planning, acquisition and development of an expanded bikeway and trail system.

Actions:

- 1) Develop a long-term action plan for the phased completion of the bikeways and recreational trails master plan.
- 2) Adopt and implement the San Sevaine Creek Bike and Recreation Trail as an important first step in the eventual completion of the City's recreational trail network.
- 3) Adopt safety design guidelines for use in each implementation phase of the trails network.
- 4) Design and construct the first phase of the Pacific Electric Inland Empire Trail near downtown.

ISSUE #6: FUNDING PARKS AND TRAILS

How can we fund our parks and trails program?

Discussion: Maintenance, operation and improvements to existing parks and trails, as well as developing new facilities, requires careful planning and a variety of funding methods. Managing recreation facilities over time is costly, and a sustained commitment to their improvement is important to keep the system intact. Building and maintaining trails can be especially costly since they often cover great distances and require special design attention at their intersection with roadways. Costs associated with parks and trails fall into four categories:

- 1) Operation and maintenance;
- 2) Facility upgrades/additions to existing parks;
- 3) Development of new parks; and
- 4) Development of new recreational trails and amenities



With regard to operations, maintenance, and upgrades, the bulk of funds come from the City's General Fund. To augment this source, the City can also consider user fees, utility user tax, rental revenue, concession sales at selected facilities, landscape maintenance and community facilities assessment districts, and volunteer programs. With regard to the development of new parks and trail systems, the City has a variety of funding sources at its disposal:

- Land dedications and in-lieu fees as a condition of approval;
- Federal, state and county grant programs;
- Negotiated agreements with public, semi-public and private corporations, such as utility companies and flood control districts for use of easements; and
- Use of general obligation and revenue bonds, which require a two-thirds vote of approval from citizens.

The critical ingredient is finding ways to keep these facilities "on the agenda" so that continuing progress can be sustained, even if only modest commitments can be made from time to time because of competition for limited funds.

GOAL #6:

Improvements to our parks and trails system are funded as a regular component of our capital improvement program along with a variety of sources both within and outside of the City.

Policies:

- 1) The City shall continue to fund parks operation and maintenance through the General Fund.
- 2) The City should to continue to keep park and recreation user fees to a minimum.
- 3) The City should coordinate its planning and funding efforts for facilities of regional interest, such as multi-use trails and regional parks, with the County and other appropriate agencies.
- 4) The City should continue to negotiate agreements for the use of utility easements, flood controls channels, and railroad rights-of-way to expand its park and trail system.
- 5) The City shall not construct facilities without funding resources for long-term maintenance and replacement costs.



Actions:

- 1) Continue to implement the local park ordinance through developer dedication or parkland or in-lieu fees.
- 2) Adopt a funding source, priority and implementation program as part of the City's Parks, Trails and Recreation Master Plan.
- 3) Develop a long-term, phased program for the funding of the City's recreational trail program, with a special emphasis on multiple sources and joint finding applications with other entities.



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Chapter 11

Safety Element





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Chapter 11. Safety Element

INTRODUCTION

Setting the Stage

In the 1990s, the Fontana area was one of the fastest growing communities in southern California. This trend is expected to continue for at least the first two decades of the 21st Century. Unchecked growth can lead to development in unsafe areas; therefore, the City of Fontana has embraced the updating of its General Plan, including a complete overhaul of its Safety Element. The Safety Element before you addresses some of the issues that pose a hazard to the Fontana area, but more importantly, provides goals, policies, and actions that the City has committed to implement to reduce its risk from these hazards. [Risk is defined as the outcome of the interaction between a hazard and the elements of the community, such as population, buildings, and infrastructure that are vulnerable to such an impact.]

Some of the hazards of concern to Fontana include earthquakes, mudflows, reservoir failure, wildland and structural fire, and the contamination of soil and groundwater resources by hazardous materials associated with some of the commercial and industrial facilities present in the city and its Sphere of Influence. These hazards can impact the area's residents, workers, and visitors, and can cause the disruption of critical (hospital, schools, fire stations) and essential (water, gas, sewage, electricity, communications) facilities. Each of these hazards is described further in the following pages; for a more detailed description of each of these conditions, refer to the accompanying Technical Background Report.

Purpose and Scope of the Safety Element

The ultimate objective of the Safety Element is to improve the safety of the community, and in the process make it more sustainable and prosperous. To that end, the Safety Element describes the natural conditions that pose a hazard, but most importantly, it presents goals,



policies, and actions that if implemented can substantially reduce the risk these hazards pose to the city of Fontana and its residents. **Goals** are statements that describe the City's purpose and direction in reducing its natural hazards. **Policies** are guidelines that can be implemented to reduce the City's risk and maximize the community's emergency preparedness. **Actions** are the specific measures that the City has committed to implementing over time to reduce its hazards.

Safety Elements are by scope and definition, provisional. Although the ultimate goal of these types of documents does not change much over time, the information, tools and techniques available to assess the community's risk to various types of hazards are continuously evolving. Policies and action plans should be considered within a framework that identifies priorities and timelines. As the more critical action items are achieved, emphasis is shifted to new priorities. Most of the data, relationships and processes that affect a community are spatial in nature, and multi-variant. As a result, manipulation of the data and assessment of the risk can be quite complex. Fortunately, geographic information systems (GIS) are increasingly being used for this purpose, and Fontana has already embraced the use of GIS-based mapping. The hardware and software available to manage the City's risk using GIS will only get better with time.

For effective emergency preparedness and response, communities need to know in advance what are the potentially hazardous conditions specific to their area. A major part of this effort requires mapping of the vulnerable areas in the community. This is covered in the Technical Background Report to the Safety Element. For example, the Technical Report identifies the fault zones that cross the city, areas of potentially unstable slopes, areas susceptible to wildfire and flooding, and locations of the facilities that use or generate hazardous materials. Computer simulations that estimate loss of life and damage to buildings and infrastructure (such as HAZUS, the software used for this study) are still in their infancy, but they have already proven to be of value in designing and prioritizing appropriate mitigation plans.

Once this information is known, appropriate land use practices and management can be identified and implemented to reduce the hazards identified. These are the topics covered in this document.

IMPORTANT TERMS AND CONCEPTS

The following technical terms and concepts are used in the Safety Element to describe and discuss earthquakes and other geologic hazards, flooding, and hazardous materials conditions. For a more thorough list of terms, refer to the Glossary in the Technical Background Report.



Earthquakes and Other Seismic Hazards

A break or fracture between blocks of rock is called a **fault**. Sudden, differential movement on a fault causes an **earthquake**. The strain energy released during an earthquake makes the earth vibrate and shake. Scientists typically use **moment magnitude** to measure the size of an earthquake, which is based on the amount of energy released and is directly proportional to the area of the fault plane that ruptured. A magnitude 6.0 earthquake releases 32 times the energy of a magnitude 5.0, and a magnitude 7.0 earthquake releases about 1,000 (32×32) more energy than a magnitude 5.0 earthquake. Earthquake damage is typically measured relative to an **intensity** scale. The Modified Mercalli Intensity Scale describes the observable effects that an earthquake has on structures and people. An earthquake has only one magnitude, but several intensities, because intensity effects vary with the location. Typically (although not always), intensities decrease with increasing distance from the epicenter of the earthquake.

In California, faults that have moved at least once in about the last 11,000 years are considered **active** and capable of generating earthquakes in the future. Some faults generate earthquakes every few tens to hundreds of years, while others only break every few thousand years. Faults with shorter **recurrence intervals** (time between earthquakes) have higher **slip rates**, and are generally considered to pose a greater seismic hazard. In southern California, the San Andreas and San Jacinto faults have the highest recurrence intervals, and are therefore considered to have a higher probability of causing an earthquake in the future. The seismic risk posed by a fault is also dependent on when a fault ruptured last. A fault with a recurrence interval of five thousand years that has not caused an earthquake in as many years may be near the end of its strain accumulation cycle, and may therefore have a higher probability of rupturing than a fault that recently caused an earthquake. If a fault breaks to the ground surface, **primary ground rupture** occurs. This typically results in a relatively small percentage of the total damage in an earthquake, but structures sitting directly on top of the ruptured fault can be damaged extensively.

Earthquake-induced strong ground shaking causes most of the earthquake damage. Damage to structures is usually caused by strong **horizontal ground acceleration**, which is measured as a percentage of **g**, the acceleration of gravity. The degree of shaking depends on several factors, including earthquake size, location, depth of the focus, orientation and movement of the seismic waves (**source effects**); the type of sediments or rocks that the seismic waves travel through (**path effects**); and the interaction between the structures and the sediments or rocks at a specific site (**site effects**). Strong ground shaking can also trigger the destructive secondary effects of liquefaction and slope failure



(landslides). **Liquefaction** occurs in soft, saturated sediments – when the ground shakes, the water that fills the pores increases in pressure, causing the soil to lose strength and behave as a liquid.

Geologic Hazards

Slope failure does not need to be triggered by an earthquake. Intense precipitation events, or long periods of sustained rainfall can saturate the soils even on a gentle slope, with the potential for the soils, and the underlying slope, to become unstable. If, in response to gravity, the saturated soils move down slope, they can form **mudflows** or **debris flows**. Mudflows can cause extensive damage to structures in their path. A slope can also become unstable and fail due to man-made modifications or stream erosion. Some of the most significant factors that contribute to slope failure include slope height and steepness, shear strength and orientation of weak layers in the underlying geologic units, and pore water pressures. Damaging debris flows frequently occur on slopes that were recently burned because there are few roots holding down the soil, and the surface is covered with ash and other debris.

Although not sudden and catastrophic, there are other potential geological hazards that if not recognized and mitigated properly, can cause extensive damage to structures. These hazards are specific to the soils that serve as a foundation to buildings and infrastructure, and include collapsible and expansive soils. **Collapsible soils** undergo a rearrangement of their grains, and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. **Expansive soils** are fine-grained soils with variable amounts of clay minerals that can undergo significant volumetric changes as a result of changes in moisture content. The upward pressures induced by the swelling can have significant harmful effects upon structures and other surface improvements.

Flood Hazards

Rain in southern California is generally a welcomed event – it cleans the air we breathe, makes our hills and mountains green, and provides water for our recharge basins and reservoirs. Prolonged and intense rainfall however, can be a less than pleasant experience. Flood-prone communities can experience swollen river channels, flooded streets and basements, mudflows and debris flows at the mouths of canyons, and other similar conditions that can cause extensive damage to property, injuries, and, in some cases, loss of life.

The Federal Emergency Management Agency (FEMA) defines the “**base flood**” or “**100-year flood**” as a flood that has a 1-percent or greater chance of being equaled or exceeded during any given year. A base flood



has a 26-percent chance of occurring during a 30-year period, generally the length of most home mortgages. However, the recurrence interval represents the long-term average period between floods of a specific magnitude; major floods could occur at shorter intervals or even within the same year.

The Federal Emergency Management Agency's (FEMA) **National Flood Insurance Program** offers federally subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA.

Fire Hazards

The fire hazard severity of an area is determined based on the type and amount of vegetation, termed **fuel loading**; slope gradient; and weather (fire hazard increases in the summer and fall, when the weather is hot and dry – and especially when there are Santa Ana wind conditions). The Bates Bill Process also considers dwelling density, past fire hazard history, and local building and fire codes in determining Very High Fire Hazard Severity Zones. When a **wildland** fire encroaches onto the built environment, multiple ignitions can develop as a result of “**branding**,” the term for wind transport of burning cinders over long distances. If ignited structures sustain and transmit the fire from one building to the next, a **catastrophic fire** can ensue. **Firestorms**, especially in areas of wildland-urban interfaces can be particularly dangerous and complex, posing a severe threat to public and firefighter safety, and causing devastating losses of both life and property.

Non-federal unincorporated areas identified as having a fire hazard are referred to as **State Responsibility Areas** (SRAs) because the State has the primary financial responsibility of preventing and suppressing fires there. The California Department of Forestry and Fire Protection is the agency responsible for suppressing fires in SRAs. However, at the **wildland interface**, where City boundaries abut federal land, the local fire agency is responsible for suppressing fires.

Earthquakes have the potential to generate multiple structural fires that have the potential to severely tax the local fire suppression agencies. The response capability of the local fire agencies to wildfires or structural fires is dictated by the distribution of fire stations relative to the high-risk areas; the response efficiency of the companies as affected by traffic and road patterns; the effectiveness of the response teams; the response reliability due to fire companies being busy on other emergency calls; and the depletion of available resources due to heavy call volumes.



Hazardous Materials

The United States Environmental Protection Agency (EPA) defines a **hazardous waste** as a substance that 1) may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness; and 2) poses a substantial present or potential future hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed. Hazardous waste is also ignitable, corrosive, or reactive (explosive) (U.S. EPA 40 CFR 260.10). A material may also be classified as a hazardous material if it contains defined amounts of toxic chemicals. The EPA has developed a list of specific hazardous wastes that are in the forms of solids, semi-solids, liquids, and gases.

The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive, or corrosive. The State also defines an **extremely hazardous material** as a substance that shows high acute or chronic toxicity, is a carcinogen (causes cancer), has bioaccumulative properties (accumulates in the body's tissues), is persistent in the environment, or is reactive in water.

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. To that end, the EPA requires that the levels of five major air pollutants be measured on a daily basis. These **Air Quality Indexes** are reported daily in the local news media serving metropolitan areas with populations exceeding 200,000. Air Quality Indexes are reported using a numerical value between 0 and 500 that corresponds to a health descriptor like "good" or "unhealthful." The local agency responsible for monitoring and enforcing air quality is the South Coast Air Quality Management District.

The EPA's National Primary Drinking Water Standard protects drinking water quality by limiting the levels of specific contaminants that are known to occur or have the potential to occur in water and can adversely affect public health. The EPA and the California Department of Health Services (DHS) set the **Maximum Contaminant Levels (MCLs)** for specific contaminants in ground water. These contaminants include organic and inorganic chemicals (minerals), substances that are known to cause cancer (carcinogens), radionuclides (such as uranium and radon), and microbial contaminants. Water purveyors are required to test their water for these contaminants on a fixed schedule, and report their results to the DHS.

Leaking underground storage tanks (USTs) have been recognized since the early 1980s as the primary cause of groundwater contamination by gasoline compounds and solvents. In California, regulations aimed at



protecting against UST leaks have been in place since 1983. California's program is more stringent than the Federal program, requiring that all tanks be double walled, and prohibiting gasoline delivery to non-compliant tanks. The State Water Resources Control Board (SWRCB) has been designated the lead regulatory agency in the development of UST regulations and policy. The SWRCB maintains an inventory of leaking underground storage tanks in a statewide database.

Treatment of hazardous waste is defined as any process that changes the physical, chemical, or biological character of the waste to make it less of an environmental threat. Treatment can include neutralizing the waste, recovering energy or material resources from the waste, rendering the waste less hazardous, or making the waste safer to transport, dispose of, or store. **Storage** is the holding of waste for a temporary period of time. The waste is treated, disposed of, or stored at a different facility at the end of the storage period. **Disposal** is the permanent placement of the waste into or on the land. Disposal facilities are usually designed to contain the waste permanently and to prevent the release of harmful pollutants to the environment.

REGULATORY ENVIRONMENT

There are several Federal and State programs and regulations pertaining to public safety that provide the legal framework to Safety Elements of the General Plan. These programs provide the minimum guidelines and criteria that must be complied with – local jurisdictions can choose to go beyond the Federal or State requirements and implement more stringent regulations. Some of the specific plans and programs that apply to the city of Fontana are discussed briefly below. This is not intended to be an all-inclusive list. For a more detailed description of the programs described below, refer to the Technical Background Report. For information regarding additional Federal, State and City regulations, refer to the Federal and State Codes of Regulations, and the City of Fontana Municipal Codes (all of these can be found on the world wide web, using various search engines).

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was signed into law in 1972 with its primary purpose being to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The Act dictates that cities and counties withhold development permits for projects within an Earthquake Fault Zone within their jurisdiction until geologic investigations demonstrate



that the projects are not threatened by surface displacements from future earthquakes. Projects include all land divisions and most structures for human occupancy. State law exempts single-family wood-frame and steel-frame dwellings that are less than three stories and are not part of a development of four units or more. However, local agencies can be more restrictive than the State.

California Seismic Hazards Mapping Act

The goal of the Seismic Hazards Mapping Act of 1990 is to minimize loss of life and property by identifying and mitigating seismic hazards. The act addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The State agency charged with implementation of the Act is the California Geological Survey (CGS). The CGS prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazard zones delineated by the CGS are referred to as "zones of required investigation" because site-specific geological investigations are required for construction projects located within these areas.

Real Estate Disclosure Requirements

Pursuant to the **Natural Hazards Disclosure Act**, since June 1, 1998, sellers of real property and their agents are required to provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more State-mapped hazard areas, such as within an Alquist-Priolo Earthquake Fault Zone or a Seismic Hazard Zone.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) was passed in 1970 to insure that local governmental agencies consider and review the environmental impacts of proposed projects within their jurisdictions. CEQA requires that an Environmental Impact Report (EIR) be prepared for projects that may have significant effects on the environment. EIRs are required to identify the geologic and seismic hazards specific to the project, and recommend potential mitigation measures, giving the local agency the authority to regulate private developments in the early stages of planning.



California Building Code

The **California Building Code** (CBC), which is included in Title 24 of the California Administrative Code, provides "minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures" within the City of Fontana. These documents are historically updated every three years. The City of Fontana recently adopted the 2001 CBC, which is based on the 1997 Uniform Building Code.

Unreinforced Masonry Law

The Unreinforced Masonry Law of 1986 requires all cities and counties in Seismic Zone 4 (CBC, 1998) to identify hazardous unreinforced masonry (URM) buildings in their jurisdictions. Owners of such buildings must be notified of the potential earthquake hazard, and mitigation must be performed. The mitigation method, which may include retrofitting or demolition, is left to the local jurisdiction. The Fontana area lies entirely within Seismic Zone 4. The City of Fontana has identified 85 unreinforced masonry structures in its jurisdiction; all of these are considered non-historic. The City has notified the owners of the buildings, but there are no mitigation measures or standards in place, and mitigation of these structures is not being required or enforced (Seismic Safety Commission, 2000).

National Flood Insurance Act and Flood Disaster Protection Act

The Federal Emergency Management Agency (FEMA) is mandated by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 to evaluate flood hazards and provide Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development. The Flood Disaster Protection Act requires owners of all structures in identified Special Flood Hazard Areas to purchase and maintain flood insurance as a condition of receiving Federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. The National Flood Insurance Reform Act of 1994 further strengthened the National Flood Insurance Program (NFIP) by providing a grant program for State and community flood mitigation projects. The act also established a system (Community Rating System - CRS) for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing the erosion hazard. The City of Fontana has participated in the NFIP since 1987 (City ID No. - 060274); however, Fontana is not currently listed in FEMA's CRS of cities.



Fire Regulations

Assembly Bill 337 (the Bates Bill, adopted September 29, 1992) was a direct result of the great loss of lives and homes in the Oakland Hills "Tunnel Fire" of 1991. The Bates Bill Process is used to identify Very High Fire Hazard Severity Zones in Local Responsibility Areas.

Government Code Section 51178 specifies that the Director of the California Department of Forestry (CDF), in cooperation with local fire authorities, shall identify areas that are Very High Fire Hazard Severity Zones (VHFHSZs) in Local Responsibility areas (LRAs), based on consistent statewide criteria and the expected severity of fire hazard. State Responsibility Areas (SRAs) include all lands regardless of ownership, except for cities and federal lands. Although the State has financial responsibility for SRAs, it is not the State's responsibility to provide fire protection services to any building or structure located within a wildland area, unless the CDF has entered into a cooperative agreement with a local agency for those purposes pursuant to **Public Resources Code Section 4142**. Under **Assembly Bill 3819**, passed in 1994 (AB 3819 – Willie Brown), "Class A" roofing, minimum clearances of 30 feet around structures, and other fire defense improvements are required in VHFHSZs. Many communities require vegetation management zones far wider than 30 feet; in the northern part of Fontana, 300 feet is recommended.

Government Code Section 51178 states that a local agency may, at its discretion, exclude from the requirements of Section 51182 an area identified as a VHFHSZ by the CDF. This requires a finding, supported by substantial evidence, that the requirements of Section 51182 are not necessary for effective fire protection within the area. Conversely, local agencies may include areas not identified as a VHFHSZ by the CDF, following a finding that the requirements of Section 51182 are necessary for effective fire protection. According to **Section 51182**, such changes made by a local agency shall be final and cannot be rebutted by the CDF.

Wildland areas require disclosure for real-estate transactions. Specifically, Assembly Bill 6 (AB6) requires that both types of fire hazard areas (SRAs and VHFHSZs) be disclosed in real estate transactions. **Civil Code Section 1103(c)(6)** also requires real estate sellers to inform prospective buyers whether or not a property is located within a wildland area that could contain substantial fire risks and hazards.

Public Resources Code Section 4290 requires minimum statewide fire safety standards pertaining to:

- Road standards for fire equipment access;
- Standards for signs identifying streets, roads, and buildings;



- Minimum private water supply reserves for emergency fire use; and
- Fuel breaks and greenbelts.

Wildland fire areas are also subject to **Public Resources Code Sections 4291 through 4299**, which require property owners in such areas to conduct maintenance in order to reduce the fire danger.

The **California Emergency Services Act, Section 8568**, states that "the State Emergency Plan shall be in effect in each political subdivision of the State, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provision thereof." The act provides the basic authorities for conducting emergency operations following the proclamations of emergencies by the Governor or appropriate local authority, such as a City Manager.

The City of Fontana uses the California Fire Code with amendments and several other fire ordinances to further reduce the City's vulnerability to structural and wildland fires. For example, since 1986, fire sprinklers and smoke detectors have been required for all new homes in Fontana.

National Pollutant Discharge Elimination System (NPDES)

The **Clean Water Act of 1995** and its subsequent amendments give the U.S. Environmental Protection Agency (EPA) the authority to regulate industrial and municipal discharges into public storm drains, sewer systems, and surface water bodies. The **National Pollutant Discharge Elimination System (NPDES)** permit program controls water pollution by regulating point sources and non-point sources that discharge pollutants into waters of the United States. EPA defines **point sources** as discrete conveyances such as pipes or man-made ditches. **Non-point source** pollution refers to the introduction of bacteria, sediment, oil and grease, heavy metals, pesticides, fertilizers and other chemicals into our rivers, bays and oceans.

The City of Fontana is a co-permittee and the local enforcing agency for the National Pollutant Discharge Elimination System (NPDES). The San Bernardino County Stormwater program is the principal permittee in the area. This program regulates and controls storm water and urban runoff into the Santa Ana River and its tributaries and ultimately, the Pacific Ocean. Local NPDES permits are filed with the California Regional Water Quality Control Board, Santa Ana Region.

Emergency Planning and Community Right-To-Know Act (EPCRA)

The primary purpose of the Federal Emergency Planning and Community Right-To-Know Act (EPCRA) is to inform communities and citizens of



chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to state and local agencies the locations and quantities of chemicals stored on-site. Section 313 of EPCRA requires manufacturers to report the release to the environment of any of more than 600 designated toxic chemicals. These reports are submitted to the U.S. EPA and state agencies and help communities prepare to respond to chemical spills and similar emergencies.

EPCRA mandates that Toxic Release Inventory (TRI) reports be made public. The TRI is a database that contains information on toxic chemical releases and other waste management activities reported annually by certain industry groups as well as federal facilities. This inventory was established in 1986 under the EPCRA and expanded by the **Pollution Prevention Act of 1990**.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 is a regulatory or statute law developed to protect the water, air, and land resources from the risks created by past chemical disposal practices. This act is also referred to as the Superfund Act, and the sites listed under it are referred to as Superfund sites.

Resources Conservation and Recovery Act

The Resources Conservation and Recovery Act (RCRA) is the principal Federal law that regulates the generation, management, and transportation of hazardous materials and hazardous wastes. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. The EPA maintains lists of the facilities that generate or transport large quantities of hazardous materials.

Hazardous Materials Disclosure Program

As indicated previously, hazardous materials are extensively legislated by the Federal, State and City governments. Both the Federal government (Code of Federal Regulations, EPA, SARA and Title III) and the State of California (California State Health and Safety Code, Division 20, Chapter 6.95, Sections 25500–25520; California Code of Regulations, Title 19, Chapter 2, Sub-Chapter 3, Article 4, Sections 2729-2734) require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, termed a reporting quantity, to submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the City of Fontana is the San Bernardino County Fire Department – Hazardous Materials Division.



In 1986, Congress passed the **Superfund Amendments and Reauthorization Act (SARA)**. Title III of this legislation requires that each community establish a Local Emergency Planning Committee (LEPC). This committee is responsible for developing an emergency plan that outlines steps to prepare for and respond to chemical emergencies in that community.

Several California statutes require the emergency notification of a hazardous chemical release. These include: Health and Safety Codes §25270.7, §25270.8 and §25507; Vehicle Code §23112.5; Public Utilities Code §7673; Government Codes §51018, §8670.25.5(a); Water Codes §13271 and §13272; and California Labor Code §6409.1(b)10. The **Safe Drinking Water and Toxic Enforcement Act of 1986**, better known as **Proposition 65**, and **§9030 of the California Labor Code** also has specific reporting requirements.

GEOLOGIC, SEISMIC AND HYDROLOGIC SETTING

The city of Fontana and its Sphere of Influence are located in the central part of the Upper Santa Ana River Valley, a region that has been referred to as the "Fontana Plain" (Dutcher and Garrett, 1963). This part of the valley is defined by the steeply rising range front of the eastern San Gabriel Mountains on the north, Lytle Creek Wash on the east, and the Jurupa Mountains on the south. Although small portions of the San Gabriel and Jurupa Mountains are within city limits, nearly all of the past development has occurred on the gently sloping valley floor. At the south end of the city, a major portion of the Jurupa Mountains has been dedicated to park (Martin Tudor-Jurupa Hills Regional Park) and open space areas. The northernmost part of the city encroaches onto the base of the San Gabriel Mountains, encompassing the lower reach of San Sevaine Canyon, and extending eastward almost to the mouth of Lytle Creek. Elevations in the valley range from about 850 feet above mean sea level at the southwestern corner of the city to about 2,000 feet near the northernmost point. In the Jurupa Mountains, the highest point within the city is approximately 1,740 feet above mean sea level, and within the San Gabriel Mountains, the high point is at an elevation of about 2,840 feet.

The city of Fontana straddles the junction between two major southern California geologic provinces, the Transverse Ranges to the north, and the Peninsular Ranges to the south, with the base of the San Gabriel Mountains (and the Cucamonga fault zone) marking the boundary. The San Gabriel Mountains are part of the Transverse Ranges province. The characteristic features that define this province are a series of predominantly east-west trending mountain ranges and their intervening valleys. The ranges encompass the northern part of San Bernardino



County, as well as parts of Riverside, Los Angeles, Ventura, and Santa Barbara counties. The Santa Ana River Valley is considered a part of the Peninsular Ranges, a province characterized by a northwest-trending geologic structural grain aligned with the San Andreas fault system, and represented by northwest-trending mountains and valleys stretching all the way to the Mexican border.

The San Gabriel Mountains are located in the central part of the Transverse Ranges, where they rise abruptly to heights of more than 6,000 feet above the valley floor. Bounded by the San Andreas fault system on the northeast and the Cucamonga fault zone on the south, the mountains are essentially a large block of the Earth's crust that has been squeezed up and thrust over the valley floor by north-south compression along the San Andreas tectonic plate boundary. Tectonic forces that initiated the rise of the mountains are thought to have started about 3.5 million years ago, at a time when scientists now believe there was a change in the relative motion of the Pacific and North American tectonic plates from strike-slip (slipping horizontally past one another) to transpressive (oblique movement that is a combination of strike-slip and compression). Uplift of the mountains accelerated in mid-Pleistocene time, about 500,000 years ago, and continues today. The San Gabriel Mountains are among the fastest rising, as well as the fastest disintegrating, mountain ranges in the world.

Along the mountain front, the Santa Ana River Valley is shaped by coalescing alluvial fans that have a range of ages coincident with the rise of the San Gabriel Mountains. The city of Fontana is situated on geologically young alluvium forming the Lytle Creek Fan. These young sediments are underlain by older alluvial fan deposits, and at great depth, by crystalline bedrock similar to that exposed in the nearby mountains. Scattered, slightly elevated remnants of the older fans are exposed at the surface where they have not been buried by the younger sediments. Sediment transport and deposition on the Lytle Creek Fan now takes place largely within Lytle Creek Wash.

Displacements on faults at the northern edge of the Santa Ana River Valley are mainly of the thrust or thrust-oblique type, causing older geologic units to be pushed up along a series of faults that dip northward beneath the mountains they form. In the Fontana area this is represented by the Cucamonga fault zone, which has thrust ancient crystalline rocks onto younger sediments filling the valley. Major strike-slip faults are also present in the vicinity, and where they have been most recently active, they have deformed the landscape and altered drainage patterns. Examples of such faulting in the Fontana vicinity are the San Jacinto and San Andreas faults, both predominantly right-lateral faults that are responsible for creating linear valleys and ridges, as well as offset stream channels. The relationship between the two styles of



fault movement (thrust and strike-slip) is complex and not well understood. Consequently, it is currently one of the focus points in the ongoing research for a better understanding of earthquake hazards in the greater Los Angeles region.

Three faults have been mapped at depth within the portion of the valley floor encompassed by the city of Fontana and its area of interest. Two of these were recognized many years ago because of disparities in water levels in pumping wells on either side of the faults (Eckis, 1934; Dutcher and Garrett, 1963). The faults act to various degrees as impediments to the movement of ground water in the deep alluvial aquifers underlying the area. This is thought to be due to offset of the water-bearing layers, or to the presence of clay or cementation along the fault plane. Since the faults do not have surface expression and are only approximately located based largely on hydrological evidence, they are commonly referred to as groundwater barriers. The most effective of these barriers (Barrier H of Dutcher and Garrett, 1963) was originally named the Rialto-Colton fault by Eckis (1934). The second fault is known as Barrier J (Dutcher and Garrett, 1963). The third fault trends across the center of the city in a northeast direction. This fault (or set of faults) has been mapped at that location based on a pronounced concentration of microearthquakes (referred to as the "Fontana Seismic Trend") that have been reported along this line for many years (Hadley and Combs, 1974; Cramer and Harrington, 1987; Sheridan, 1997). Micro-seismic activity also marks the approximate location of Barrier J (Burnett and Hart, 1994). For additional information regarding these faults, refer to Chapter 1, Seismic Hazards, in the Technical Background Report.

ISSUES, GOALS, POLICIES & ACTIONS

In conformance with Section 65302(g) of the California Code of Regulations, the City of Fontana has updated its Safety Element of the General Plan. A comprehensive Safety Element addresses a variety of natural and man-made hazards and provides goals and policies aimed at reducing the risk associated with these hazards.

The Safety Element serves the following functions:

- Provides an assessment of the natural and man-made hazards in the city, including, but not limited to, earthquakes, landslides, fire, flood, dam inundation, and hazardous materials incidents;
- Provides a framework by which safety considerations are introduced into the land use planning process and the redevelopment process;
- Strengthens the City's existing municipal codes, and provides guidelines that the City can use during the project review and



permitting process to identify and mitigate hazards for new development and redevelopment;

- Provides policies directed at identifying and reducing hazards in existing development; and
- Strengthens earthquake flood, fire, and hazardous materials preparedness planning and post-disaster reconstruction policies particular to the city of Fontana.

Whether related to earthquakes, other natural or man-made hazards, or disaster preparedness, Safety Element goals are guided by the City's responsibility to:

- Minimize fatalities and injuries;
- Minimize the burden on public and emergency response resources (police, fire, medical, etc.);
- Minimize public and private costs for cleanup, repair, and recovery; and
- Minimize long-term impacts caused by displaced households, business disruption, and reduced fiscal resources (with a consequent tax burden).

Policy statements address specific concerns believed to be of long-term planning importance to the community. **Actions**, on the other hand, are specific implementation measures selected to maintain or improve public safety, and to satisfy the objectives of the policies and goals.

The following are recommendations for the Safety Element policy framework for the city of Fontana based on findings presented in the Technical Background Report.

ISSUE #1: SEISMIC HAZARDS

What can the City do to minimize its seismic hazards?

Discussion: The Cucamonga and San Jacinto faults, two of the most active faults in southern California, extend across the northern portion of the city of Fontana. Three possible faults have been mapped at depth under the city of Fontana and its area of interest. Two of these form groundwater barriers (Barrier H and Barrier J). The third feature (Fontana Seismic Trend) is delineated by a pronounced concentration of small earthquakes, and may be expressed at the surface by a series of northeast-trending lineaments that have not been investigated previously. See Figure 11-1, *Fault Map*, for a depiction of these seismic features. The city of Fontana also lies within a few miles of the San Andreas fault. As a result, the entire study area is susceptible to very strong ground shaking, and some areas of the city can be impacted by



surface fault rupture. Given that ground water may occur within 40 feet of the surface in that portion of the Lytle Creek channel located within the city, the channel is considered susceptible to liquefaction. Other areas in the southern portion of the city may also have a moderate susceptibility to liquefaction due to seasonal saturation of the near-surface sediments. See Figure 11-2, *Liquefaction Susceptibility Map*, for a depiction of these areas.

A maximum magnitude earthquake on any of the three faults close to the city (Cucamonga, San Jacinto and San Andreas faults) has the potential to generate significant damage to wood-frame, reinforced concrete and steel structures, and to mobile homes. Most of the casualties anticipated in the area as a result of any of these earthquakes are thought to be associated with collapse of reinforced concrete and steel structures common in the commercial and industrial sections of the city. Mobile homes are expected to suffer extensive to complete damage. In all, nearly 50 percent of the structures in the area are expected to experience at least moderate damage.

Damage to the local hospital is expected to be significant; given the number of people in the Fontana area that are expected to require hospitalization after any of these earthquakes, the existing hospital, even if fully operational, is not expected to be able to handle the demand. The models suggest that the local potable water and electric power systems will be severely taxed during an earthquake on any of the major earthquake sources nearby. HAZUS estimates that 96 percent of the schools in the area will experience at least moderate damage, although none will be completely damaged. The model also estimates that none of the schools in the area will be more than 50 percent functional one day after the earthquake. All police stations and fire stations are anticipated to suffer at least moderate damage, and none of these facilities are expected to be more than 50 percent functional one day after the earthquake.



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Fault Map

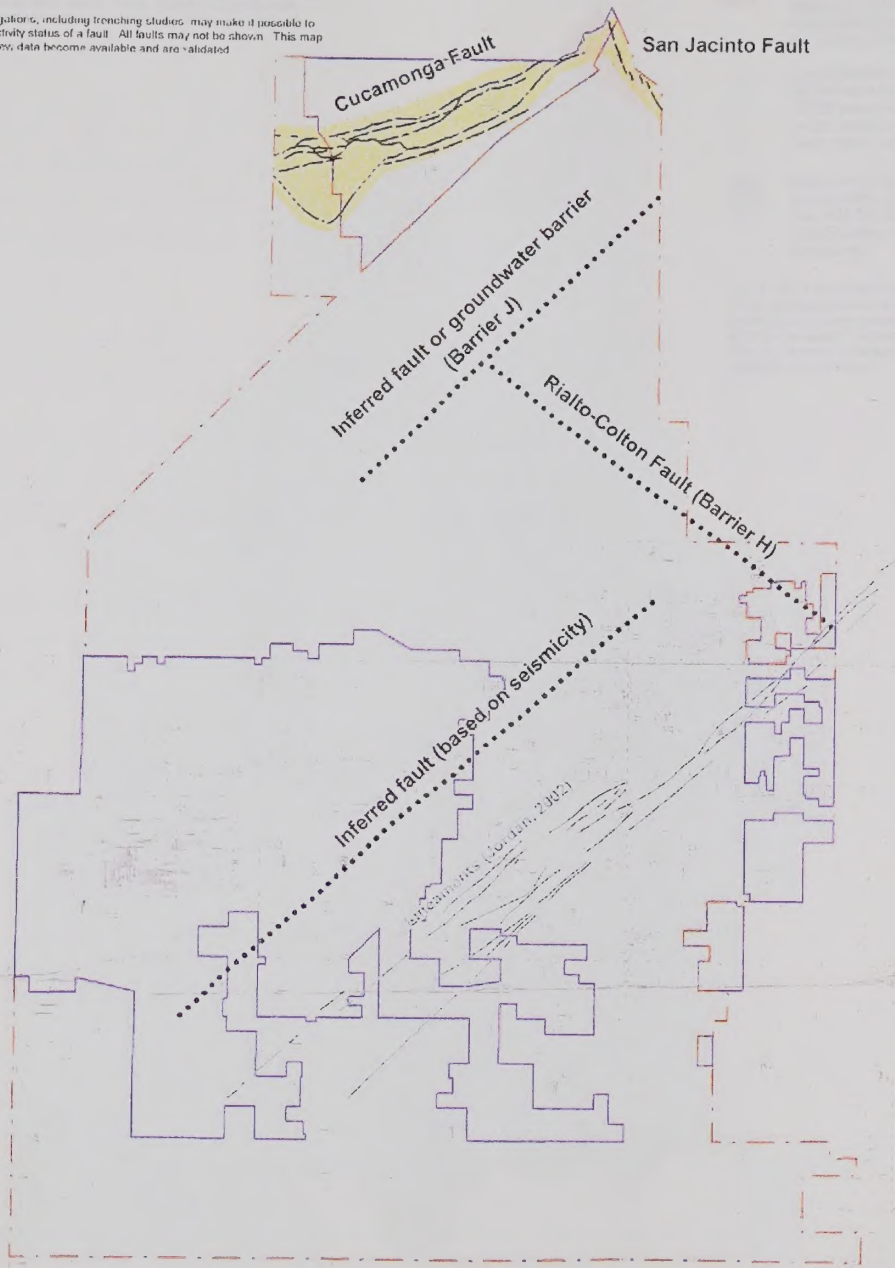
NOTES:

This map is intended for general land use planning only. Information on this map is not sufficient to serve as a substitute for detailed geologic investigations of individual sites, nor does it satisfy the evaluation requirements set forth in geologic.

Fault lines on the map are used solely to approximate the fault location. The width and location of the faults should not be used in lieu of site specific investigations, evaluation, and design.

Detailed geologic investigations, including trenching studies, may make it possible to refine the location and activity status of a fault. All faults may not be shown. This map should be amended as new data become available and are validated.

Earth Consultants International (ECI) makes no representations or warranties regarding the accuracy of the data from which these maps were derived. ECI shall not be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of this map.



Base Map: USGS Topographic Map from Sure!RASTER MAPS

Sources: Eckis, 1934; Dutcher & Garrett, 1963; CDWR, 1970; Morton, 1974; California Division of Mines and Geology, 1995; F. Jordan (2002 personal communication).

0.5 0 0.5 1 1.5
Miles

- Fontana City Limit
- Sphere of influence
- Alquist-Priolo Earthquake Fault Zones
- Lineaments identified in aerial photos by F. Jordan (personal communication, 2002)

- Fault: considered active, with the potential for surface rupture, solid where location known, dashed where approximate, dotted where inferred
- Concealed Faults



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1. The first part of the document is a list of the names of the people who were present at the meeting. The names are listed in alphabetical order.



2. The second part of the document is a list of the names of the people who were present at the meeting. The names are listed in alphabetical order.



Liquefaction Susceptibility

NOTES:

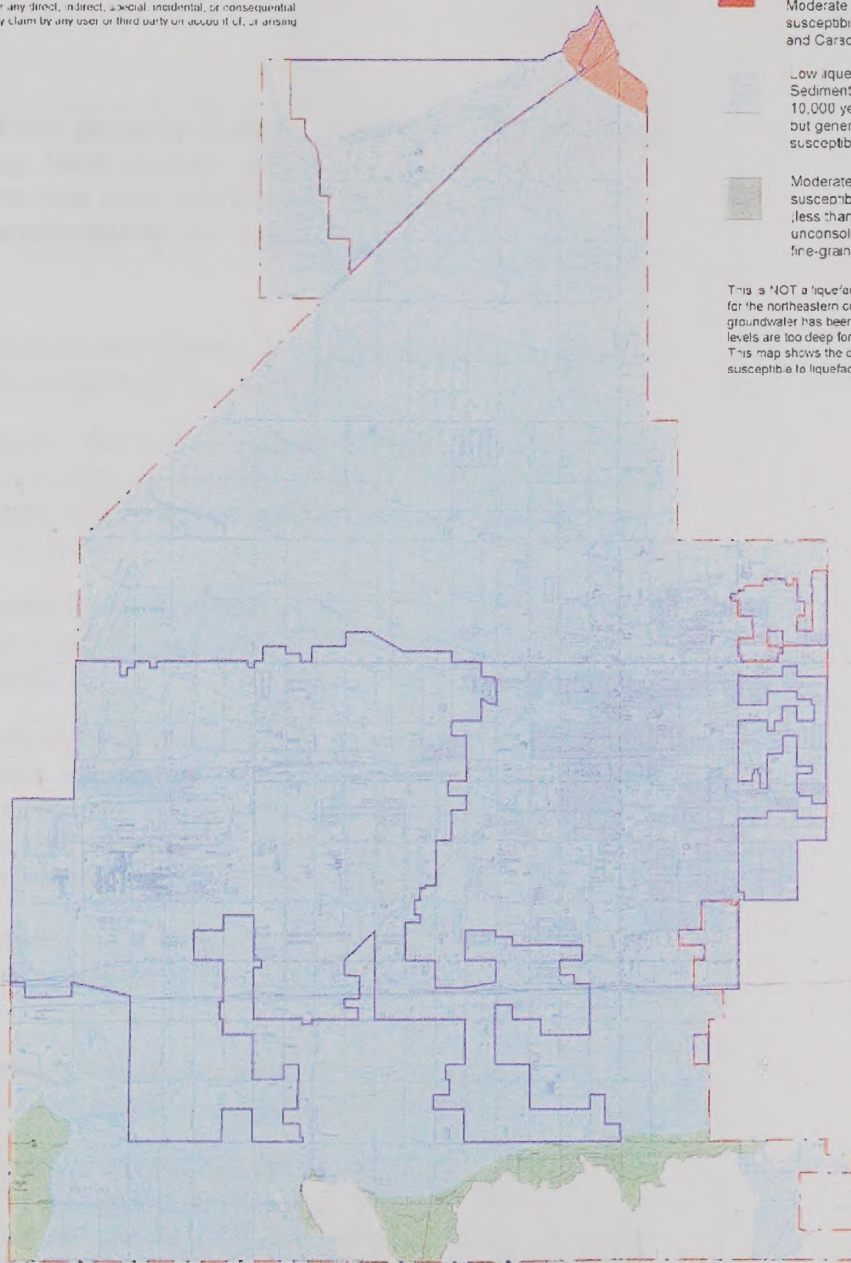
This map is intended for general use planning only. Information on this map is not sufficient to serve as a substitute for detailed geologic investigations of individual sites, nor does it satisfy the evaluation requirements set forth in geologic hazard regulations.

Earth Consultants International (ECI) makes no representations or warranties regarding the accuracy of the data from which these maps were derived. ECI shall not be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of this map.

Liquefaction Susceptibility

- Area where shallow groundwater has been reported historically. Moderate to high liquefaction susceptibility as mapped by Matti and Carson (1991).
- Low liquefaction susceptibility. Sediments are young (less than 10,000 years old), unconsolidated but generally too coarse to be susceptible to liquefaction.
- Moderate to high liquefaction susceptibility. Sediments are young (less than 10,000 years old), unconsolidated, and generally fine-grained.

This is NOT a liquefaction hazard map. Except for the northeastern corner of the city where groundwater has been reported, groundwater levels are too deep for liquefaction to occur. This map shows the distribution of sediments susceptible to liquefaction.



Base Map: USGS Topographic Map from Sure! RASTER MAPS
Source: Modified, Morton 1974, Morton, 1978, Morton and Matti, 2001; Matti and Carson (1991).

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Miles

--- Fontana City Limit
— Sphere of Influence



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**GOAL #1:**

Injury and loss of life, property damage, and other impacts caused by seismic shaking, fault rupture, ground failure, earthquake-induced landslides, and other earthquake-induced ground deformation are minimized in our City.

Policies:

- 1) The City shall monitor development or re-development in areas where faults have been mapped through the city.
- 2) The City shall ensure that current geologic knowledge and peer (third-party) review are incorporated into the design, planning, and construction stages of a project, and that site-specific data are applied to each project.
- 3) The City shall strive to ensure that the design of new structures and the performance of existing structures address the appropriate earthquake hazards.
- 4) The City shall ensure to the fullest extent possible that, in the event of a major disaster, essential structures and facilities remain safe and functional, as required by current law. Essential facilities include hospitals, police stations, fire stations, emergency operation centers, communication centers, generators and substations, and reservoirs.
- 5) The City shall ensure to the fullest extent possible that, in the event of a major disaster, dependent care and high-occupancy facilities will remain safe.
- 6) The City shall ensure that all residents and business owners in the City have access to information regarding seismic hazards.
- 7) The City shall continue earthquake strengthening and provisions for alternate or back-up essential services, such as water, sewer, electricity, and natural gas pipelines and connections throughout the city. First priority for this action plan should be for the essential services within or north of the identified fault hazard management zones.

Actions:

- 1) Require geological studies, such as fault trenching, if developments or redevelopments are proposed within the Alquist-Priolo Earthquake Fault Zones for the Cucamonga or San Jacinto faults. The studies shall be conducted by State-certified engineering geologists following the "Guidelines for Evaluating the Hazard of Surface Fault Rupture" published by the California Geological Survey. The City Geologist



shall review the fault studies to ensure that the studies were conducted with an acceptable level of effort to determine whether or not there are active faults through the proposed development, and if warranted, that suitable fault setbacks are defined.

- 2) Require geological studies, such as trenching, of the northeast-trending lineaments for essential facilities proposed within 50 feet of any of the lineaments shown. The studies shall be conducted by State-certified engineering geologists following the guidelines published by the California Geological Survey (see Action 1). The City Geologist shall review the fault studies to ensure that the studies were conducted with an acceptable level of effort to determine whether or not there are active faults through the proposed development, and if warranted, that suitable fault setbacks are defined.
- 3) Retain on staff, or on a contract basis, a State-certified engineering geologist and a geotechnical engineer to review all geologic and geotechnical studies for proposed development or redevelopment, including fault studies, and to review grading operations. These individuals, whether on staff or under contract to the City, are referred to herein as the City Geologist and City Geotechnical Engineer, respectively.
- 4) Require geological and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental impact and development review process. Do not approve proposals and projects for development or redevelopment that do not provide for mitigation of seismic or geologic hazards to the satisfaction of the reviewing departments and agencies.
- 5) Require preliminary geological investigations of tract developments by State-registered geotechnical engineers and certified engineering geologists (in accordance with the California Building Code).
- 6) Require liquefaction assessment studies in those areas identified as having a low to high susceptibility to liquefaction. The liquefaction studies need to be conducted in accordance with the guidelines published by the California Geological Survey (Special Publication 117) and the Southern California Earthquake Center's recommended procedures for implementation of Special Publication 117 guidelines.
- 7) Modify the Fault Map as data obtained from the implementation of the action plans under Policy 1-1 become available. Modification of the map will be conducted by or under the direction of the City Geologist. Changes to the Alquist-Priolo Earthquake Fault Zones for the Cucamonga and San Jacinto faults first need to be submitted to the California Geological Survey for review and consideration.



- 8) Modify the Liquefaction Susceptibility Map as data obtained from the implementation of Action 4 above become available. Modifications to the map shall be conducted by or under the direction of both the City Geologist and City Geotechnical Engineer.
- 9) Continue to enforce the seismic design provisions for Seismic Zone 4 of the California Building Code, including near-source seismic conditions for all new construction in the city.
- 10) Establish seismic retrofit standards and adopt a mandatory strengthening program for the unreinforced masonry structures (URMs) in the city to reduce the risk to life posed by these structures.
- 11) Identify other types of un-retrofitted, potentially hazardous buildings, including tilt-up construction, non-ductile reinforced concrete, and tuck-under parking and other soft-story construction, and develop a catalog of these buildings in the city.
- 12) Prepare a plan for structural retrofit of such buildings identified under Action Plan 3 above. Mandatory strengthening shall be required for all high-occupancy and essential buildings in the catalog.
- 13) Disclose to buyers the potential problems with unbolted foundations in pre-1960 residences and encourage voluntary seismic retrofit of these structures.
- 14) Encourage the seismic retrofit of mobile homes in the city.
- 15) Continue to encourage the participation of the Planning and Building & Safety Departments during the early, conceptual stages of an essential facility project to assess its feasibility, with emphasis on issues such as ground shaking, surface fault rupture potential, liquefaction susceptibility, and flooding potential.
- 16) Encourage compliance with the 1974 Hospital Facilities Seismic Safety Act, the 1986 California Earthquake Hazards Reduction Act, and Senate Bill 1953. Work with Kaiser Permanente Hospital and state agencies to ensure that the hospital buildings will remain operational following a maximum magnitude earthquake on the Cucamonga, San Jacinto, or San Andreas faults.
- 17) Seek cooperative agreements with regional hospitals outside City limits that can provide medical assistance in the event that Kaiser Permanente Hospital does not have sufficient beds to accommodate all of the casualties resulting from an earthquake or other disaster. Open areas, such as parks and school fields, from which victims could be airlifted to regional hospitals if necessary will be identified as part of this action plan.



- 18) Conduct seismic analysis of essential infrastructure such as water, sewer, electricity, and natural gas lines and make any structural changes necessary to withstand seismic activities. This may include additional strengthening, shoring and/or flexible pipelines in areas that cross fault hazard zones.
- 19) Review the aboveground water storage tanks in the city to determine their expected seismic performance. Seismic upgrade of these facilities, including the use of flexible joints and baffles will be conducted as necessary.
- 20) Encourage the Fontana Unified School District to strengthen or replace those school buildings that are not anticipated to perform well during an earthquake.
- 21) Review existing and proposed projects to ensure that stairways and elevators in high-occupancy buildings are adequately strengthened.
- 22) Develop an effective system for communicating information about risk and loss reduction strategies to City staff in all departments responsible for implementing the action plans defined in the Safety Element.
- 23) Educate the public on the hazards that can pose a risk to the City and its residents, and describe loss reduction strategies that can be used to mitigate the specific hazards identified, including the value of securely anchoring computers, shelving, and other non-structural elements that can cause significant harm if they fall as a result of ground shaking.
- 24) Use the City's web site to communicate to the City's residents, workers and visitors the hazards specific to the City, and, most importantly, to describe the loss reduction strategies that homeowners and workers can implement at home and the work place to reduce their risk.

ISSUE #2: GEOLOGIC HAZARDS

How can the City minimize its geologic hazards?

Discussion: The city of Fontana is largely situated on the surface of young alluvial fans emanating from the San Gabriel Mountains. The valley is underlain by thick deposits of alluvium consisting primarily of poorly to crudely stratified sand, gravel, and boulders.



The northern and southern edges of the city encroach onto or near hillside areas consisting of dense crystalline bedrock. See Figure 11-3, *Slope Distribution Map*, for a depiction of these areas. These hillsides are vulnerable to slope instability due primarily to the fractured, crushed and weathered condition of the bedrock, and the steep terrain. See Figure 11-4, *Slope Instability Map*, for a depiction of these areas. Oversteepened slopes, such as those along quarry excavations, are also locally susceptible to failure. The probability of large bedrock landslides occurring is relatively low, as indicated by the very few landslides that have actually been mapped in the area. Therefore the source of potential losses due to slope instability arises primarily from the occurrence of smaller slope failures in the form of small slides, slumps, soil slips, debris flows, and rockfalls. The potential for such failures can be enhanced by wildfire, heavy winter storms, seismic activity, or man's activities.

Development has reached the base of the San Gabriel and Jurupa Mountains in recent years. Without protection, portions of these developments may be susceptible to run-off, sedimentation, and small slope failures from the adjacent hills. Under the right climatic and geological conditions, mountain drainages can also produce destructive debris flows, especially in winters following wildfires.

The soils that underlie most of the city and its area of interest are not considered potentially collapsible. However, the alluvial and wind-blown deposits on the valley floor may be susceptible to collapse. Therefore, in areas proposed for development, site-specific studies need to be conducted to evaluate the settlement potential of the underlying soils. These geotechnical studies should evaluate the collapse potential of the entire soil column within the effective depth of infiltration of irrigation water, instead of only the near-surface soils.

Most of the sediments that blanket the valley area are coarse grained and generally have a very low potential for expansion. However, finer-grained components that are moderately to highly expansive may be present locally. These units are more likely to be present in the southern part of the city, where finer-grained sequences within the alluvial fans are present. These fine-grained units may not be present at the surface but may be exposed during grading. The presence of potentially expansive soils should be assessed for every project, on a lot-by-lot basis, with engineering solutions implemented as needed.

Regional ground subsidence as a result of groundwater extraction has not been reported in the Fontana area but it is known to be occurring in other nearby regions. Careful management of the regional ground water basin that underlies the area can help avoid this hazard.

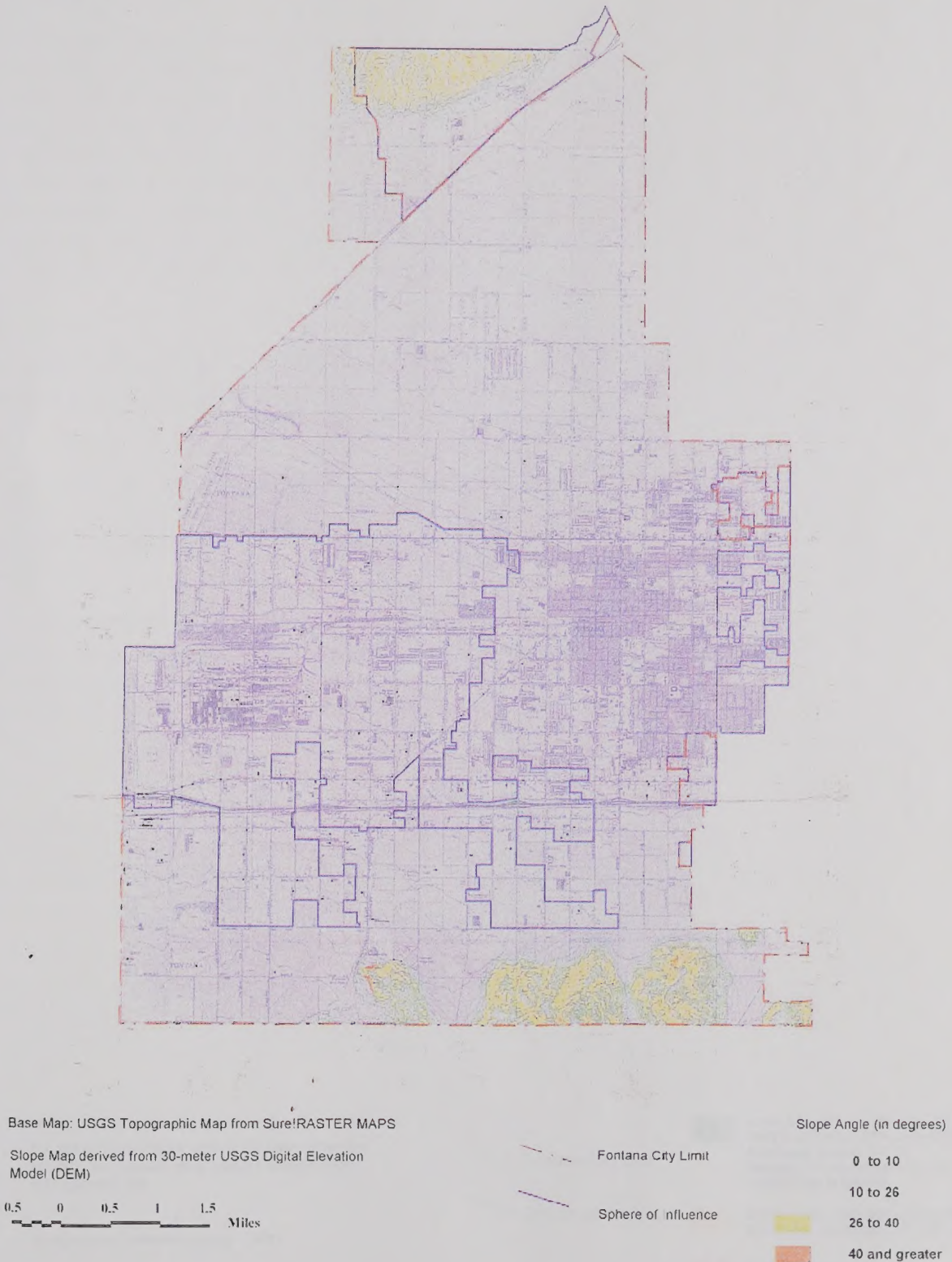


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Slope Distribution

NOTES:

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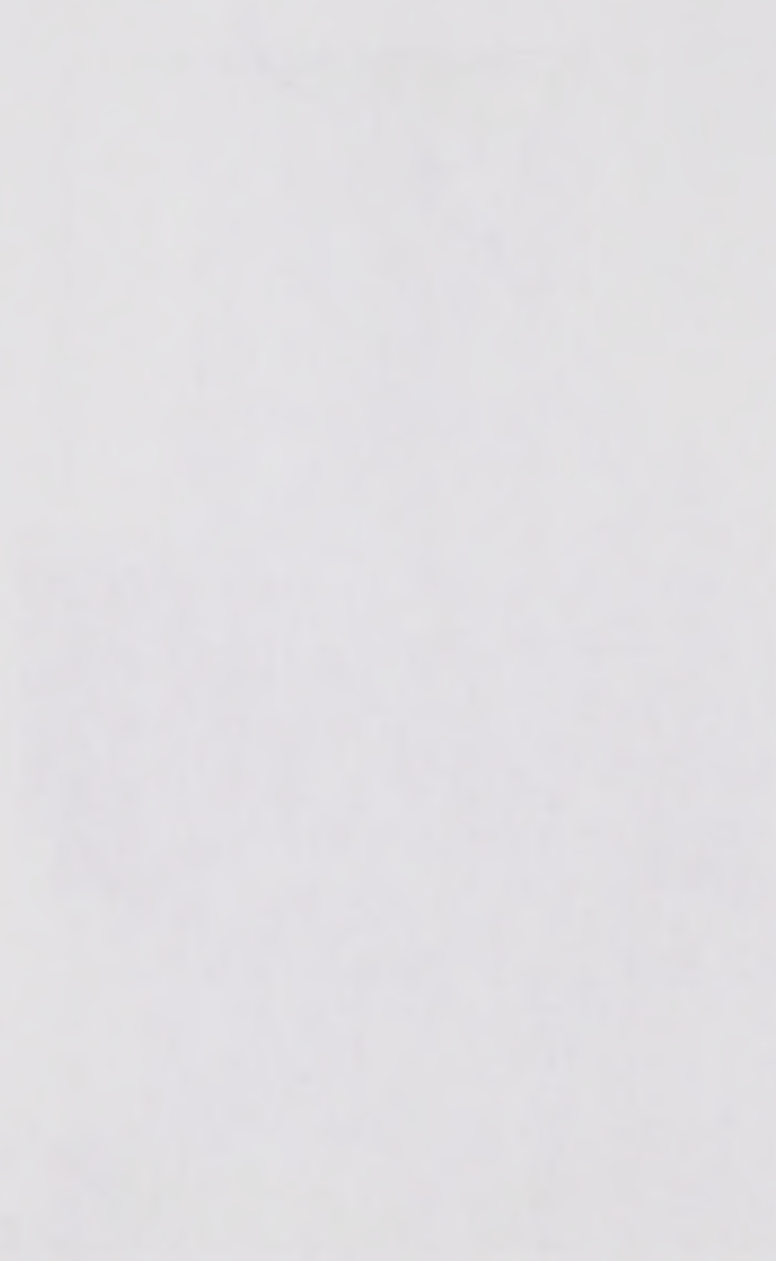


Table 1: Summary of Data

Category	Value
Category A	100
Category B	200
Category C	300
Category D	400
Category E	500



Slope Instability

NOTES:

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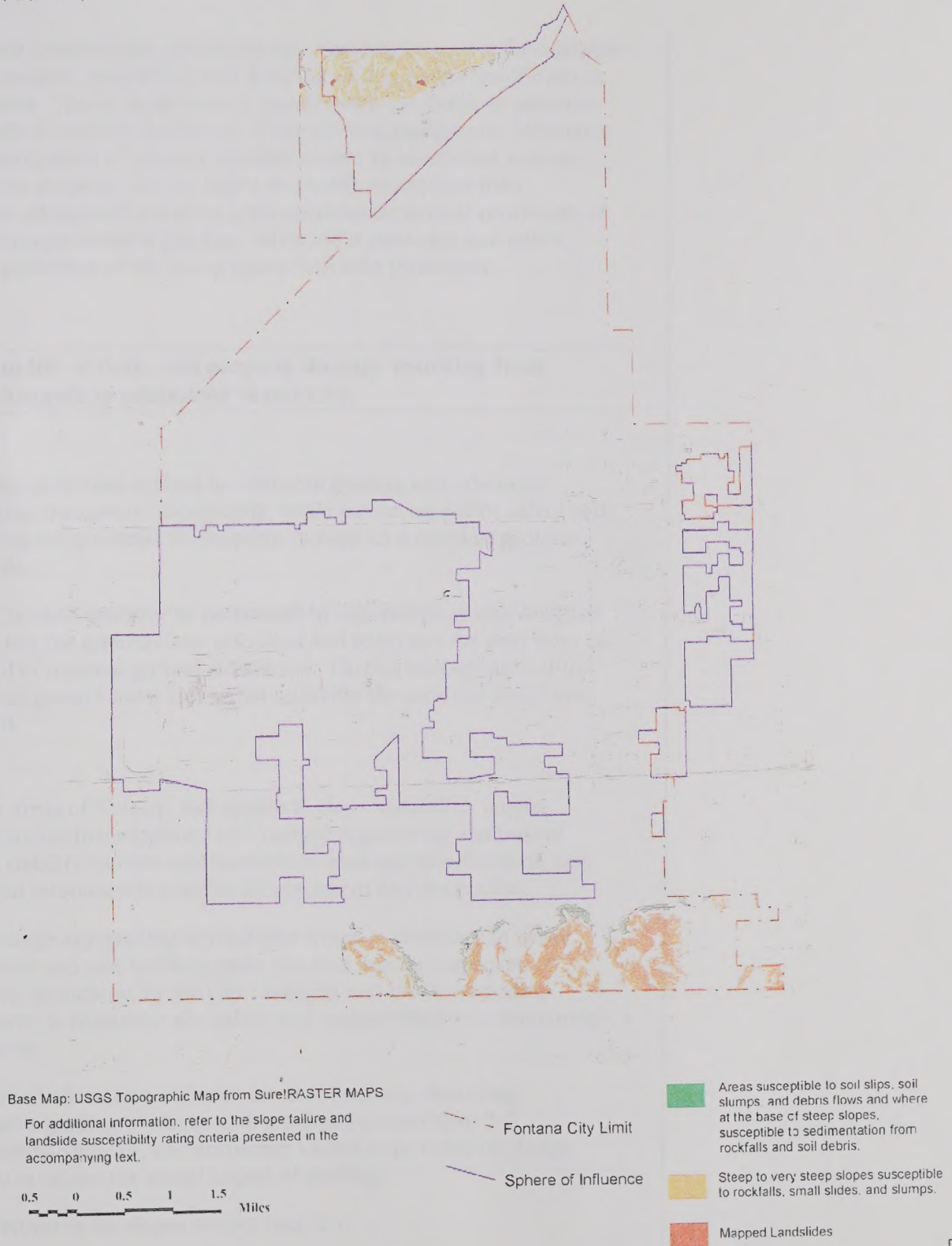


Figure 11-4

Stages of development

Stages of development





Grading and construction operations are necessary to correct for unstable soils, soil erosion, landsliding and flooding (debris and/or mudflows) in hillside areas. This is sometimes in conflict with the desire to preserve the aesthetic or natural conditions of the existing topography. Whenever possible, mitigation of geologic hazards should be conducted without violating the property owners' rights to modify or improve their investment, along with preserving the aesthetic or natural conditions of the area through minimal grading. When these goals are in conflict, however, protection of life and property will take precedence.

GOAL #2:

The risk to life or limb, and property damage resulting from geologic hazards is minimized in our City.

Policies:

- 1) The City shall take actions to minimize grading and otherwise changing the natural topography, while protecting public safety and reducing the potential for property damage as a result of geologic hazards.
- 2) The City shall continue to participate in regional programs designed to protect the groundwater resources and to protect the area from the hazard of regional ground subsidence. Careful management of the regional ground water basin that underlies the area can avoid this hazard.

Actions:

- 1) In the areas of Fontana susceptible to slope instability, require geotechnical investigations that include engineering analyses of slope stability, surface and subsurface drainage specifications, and detailed recommendations for fill placement and excavation.
- 2) Discourage any grading beyond that which is necessary to create adequate and safe building pads. Conduct regular inspection of grading operations, by the City Geologist and the Geotechnical Engineer, to maximize site safety and compatibility with community character.
- 3) In the hillside or mountainous areas of Fontana, discourage excessive grading of slopes with gradients steeper than 3:1 (horizontal:vertical), and encourage varied slope ratios on design slopes to reduce the visual impact of grading.
- 4) Prohibit cut or fill slopes steeper than 2:1.



- 5) Do not permit the reconstruction of structures meant for human habitation that were damaged or destroyed by failed slopes unless the applicant can prove that the remedial measures proposed will improve the unstable slope conditions and make the site suitable for redevelopment.
- 6) In the valley portions of the city, require geotechnical studies to evaluate the potential for soil collapse and seismically induced settlement.
- 7) For all potential building sites, require geotechnical studies to evaluate the potential for damage from expansive soils.
- 8) Continue to encourage water conservation through public education.
- 9) Develop and implement a ground water monitoring program to ensure that ground subsidence as a result of groundwater withdrawal remains a non-issue.

ISSUE #3: FLOOD HAZARDS

How can the City minimize the damage caused by flooding?

Discussion: The city of Fontana sits primarily on alluvial sediments shed from the San Gabriel and Jurupa Mountains, and carried downslope onto the valley floor by a series of ephemeral streams, including Duncan, San Sevaine, Morse, and Henderson Creeks, and several smaller unnamed streams. Any rainwater that does not infiltrate the valley sediments makes its way as runoff into the East Etiwanda Creek Channel or the Etiwanda – San Sevaine Channel. Except for the Santa Ana River, most of the streams in the valley have significant flow only during the wet winter months, when they may carry large amounts of runoff for short periods of time. Average yearly precipitation in the Fontana area is 26.6 inches. However, rainfall is extremely variable from year to year.

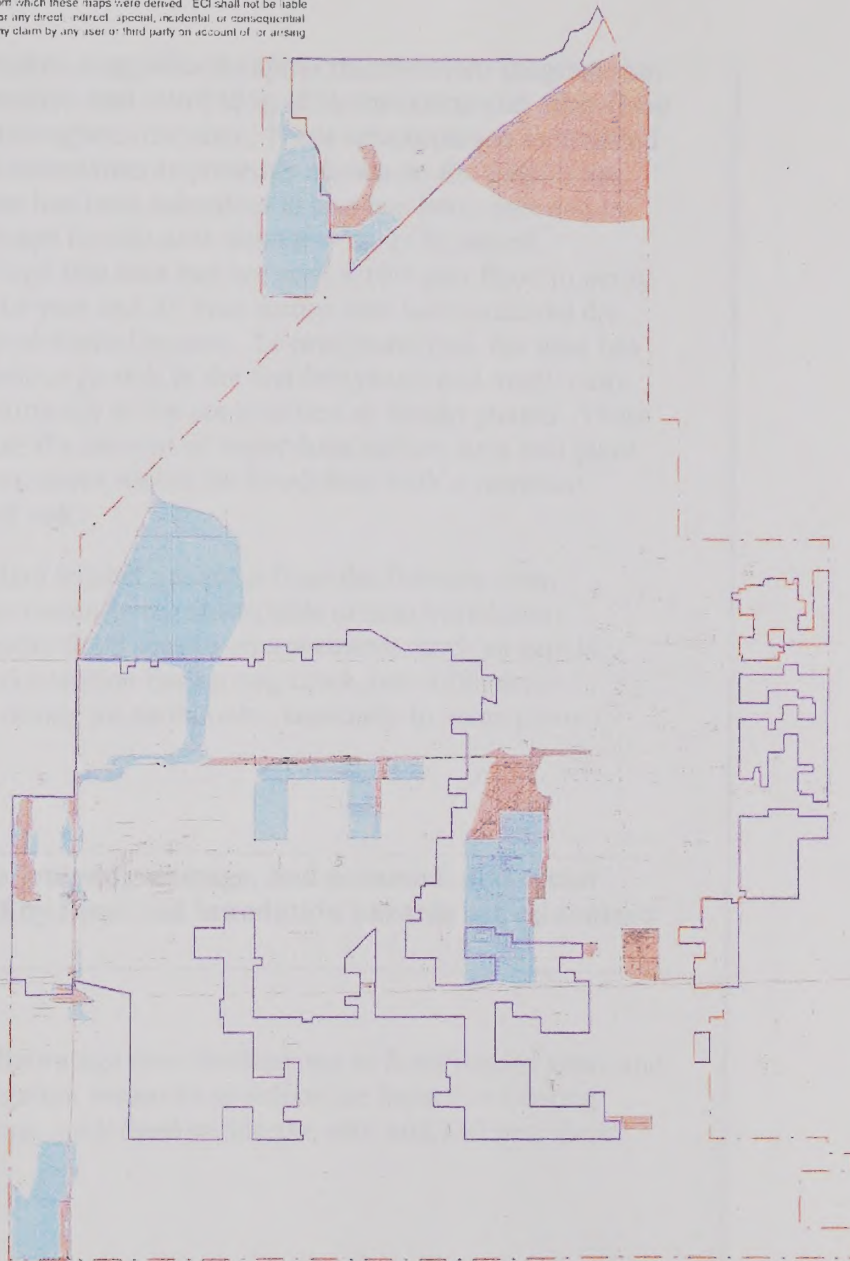
The city of Fontana is not vulnerable to flooding associated with the Santa Ana River and its larger tributaries. However, the smaller channels and alluvial fans within or immediately adjacent to the city do pose a flooding potential. The most current flood maps prepared by FEMA show that several sections in the study area are subject to 100- and 500-year flooding (see Figure 11-5, *Firm Flood Zones*). Several existing critical facilities are situated within these flood boundaries, as well as numerous hazardous materials sites.

FIRM Flood Zones

NOTES:

This map represents the estimated limits of the 100- and 500-year flood zones. Flooding larger than this is possible. Construction activities and sedimentation may change these limits.

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Base Map: USGS Topographic Map from Sure! RASTER MAPS

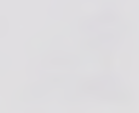
Source: Federal Emergency Management Agency (FEMA), 1996 & 1997

0.5 0 0.5 1 1.5 Miles

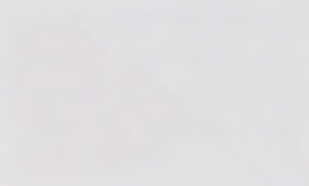
Fontana City Limit
Sphere of Influence

Areas of 100-year flood, no base flood elevations determined.
500-year flood zone





1. The first step in the process is to identify the problem area. This involves a thorough inspection of the site to determine the extent of the damage and the underlying cause. Once the problem has been identified, the next step is to develop a plan of action.



2. The second step is to implement the plan. This involves the removal of the damaged material and the replacement with new material. It is important to ensure that the new material is installed correctly and that the work is done in a safe and efficient manner.

3. The third step is to inspect the work. This involves a final inspection of the completed work to ensure that it meets the required standards and that the problem has been resolved.

4. The fourth step is to document the work. This involves recording the details of the work done, including the date, time, and location, as well as the name of the person who did the work.

5. The fifth step is to report the work. This involves providing a report to the relevant authorities, such as the building manager or the local council, detailing the work done and the results of the inspection.

6. The sixth step is to maintain the work. This involves regular inspections of the work to ensure that it remains in good condition and that any problems are identified and resolved as soon as possible.

7. The seventh step is to review the work. This involves a final review of the work to ensure that it has been completed successfully and that the problem has been resolved.

8. The eighth step is to close the work. This involves closing the work order and ensuring that all necessary documentation is in place.

9. The ninth step is to evaluate the work. This involves evaluating the work to determine if it was done correctly and if it was done in a safe and efficient manner.

10. The tenth step is to improve the work. This involves identifying any areas for improvement and implementing changes to ensure that the work is done better next time.

11. The eleventh step is to communicate the work. This involves communicating the results of the work to the relevant parties, such as the building manager or the local council.

12. The twelfth step is to archive the work. This involves archiving the work order and any other relevant documentation for future reference.

13. The thirteenth step is to monitor the work. This involves monitoring the work to ensure that it remains in good condition and that any problems are identified and resolved as soon as possible.

14. The fourteenth step is to review the work. This involves a final review of the work to ensure that it has been completed successfully and that the problem has been resolved.

15. The fifteenth step is to close the work. This involves closing the work order and ensuring that all necessary documentation is in place.





The City has undertaken a significant capital improvement program that includes the construction and retrofitting of storm drains and other flood control structures throughout the area. These structures are anticipated to reduce the flood boundaries as presently shown on the FIRM maps. Once documentation has been submitted to and has been reviewed by FEMA, new FIRM maps for this area will most likely be issued.

Nevertheless, although this area has not seen a 100-year flood in many years, the smaller 10-year and 25-year storms that have occurred did strain the area's flood control system. To compound this, the area has experienced tremendous growth in the last few years, and many more developments are currently in the construction or design phases. These projects will increase the amount of impervious surface area and place more people and structures within the floodplain, with a resultant increase in the flood risk.

There is no major dam located upstream from the Fontana area, therefore, the city is currently not susceptible to dam inundation. However, other smaller flood control improvements, such as canals, culverts, levees, and retention basins may crack and suffer some structural damage during an earthquake, especially in areas prone to ground failure.

GOAL #3:

Injury, loss of life, property damage, and economic and social disruption caused by flood and inundation hazards are minimized in our City.

Policies:

- 1) The City shall discourage new development in flood hazard areas and implement mitigation measures to reduce the hazard to existing developments that are located within the 100- and 500-year flood zones.

Actions:

- 1) Continue to participate in the National Flood Insurance Program and encourage property owners in and near the 100-year flood zone to purchase flood insurance.
- 2) Discourage development in the northern and central portions of the city where flood hazards pose a threat, unless the applicant can prove to the satisfaction of the reviewing agency(ies) that the proposed development will not be impacted by flooding, or that remedial measures to reduce the hazard of flooding will be implemented in the design.



- 3) Continue to encourage the development of parks and recreational facilities along streams draining the San Gabriel and Jurupa Mountains. These improvements will be consistent with the natural environment of the area and help preserve open space.
- 4) Assess the potential environmental impacts that new construction in upstream areas will have on existing development down-gradient. Require hydrological studies for all new construction to determine the impact that new development will have on the County storm drain system and privately owned debris basins downstream from new development. Require storm drain improvements if the analyses indicate a potential hazard. Fees to pay for the improvements may be assessed to the developers, as appropriate.
- 5) Continue to maintain the culverts and storm drain system to prevent the accumulation of debris or other obstructions that would hamper the effectiveness of the system during rainy days.

ISSUE #4: FIRE HAZARDS

How can the City minimize the threat from urban and wild fire and provide adequate fire suppression for a fast growing city?

Discussion: Many major vegetation fires have occurred historically in the Fontana area; some of these destroyed homes and other structures. These fires have occurred mostly in the northwesterly area of the city, but a few fires have also occurred in the Jurupa Mountains. In fact, the fire history indicates that a major fire occurs approximately once every ten years in the area. In all fires where structures were lost, the structures were unprotected buildings without fire sprinklers and without vegetation management zones around them.

The northwestern corner of the city has high hazard chaparral vegetation and steep slopes. This area is also subject to high, hot Santa Ana (or Santana) winds that blow from the north-northeast down the Cajon Pass. Fire models indicate that a fire in this area can have a major impact on the fire-fighting forces in Fontana and neighboring communities. The Jurupa Mountains have high grasses and locally steep slopes. A major fire in this area also has the potential to tax the fire forces of Fontana and adjacent communities, and to result in major traffic congestion as residents attempt to evacuate while onlookers try to enter the area. In addition to the two areas identified above, flat, grassy vacant properties in the city are also susceptible to vegetation fires.

Most structural fires occur in residences, and most fatalities in fires occur in residences. Residential developments located next to high fire hazard areas are at high risk of being impacted by fire, especially if the



structures are not properly protected and there is inadequate vegetation management. Since 1986 all new homes in Fontana have been equipped with fire sprinkler systems and smoke detectors, and homes constructed since 1980 have proven to withstand fires better than older homes. In the older, low-income residential neighborhoods, however, structural fire is a concern because the houses are not protected with sprinklers, the buildings are often in a state of disrepair, and it is not uncommon for multiple families, or several unrelated persons to share a home together. An analysis of historical fires in the Fontana area indicates that the city's risk to structural fire can be classified as low probability / high consequence.

Similar comments can be made about the older commercial facilities in the city. These also lack fire sprinklers, and where several buildings adjoin each other, there is the potential for a multi-occupancy fire that could destroy several buildings due to lack of fire separations. Older portions of the Kaiser Permanente Hospital and associated buildings are not fitted with sprinklers. Given the large patient population, many of them non-ambulatory, a fire in the hospital can be considered the worst-case scenario for a structural fire in the city, with the potential for major loss of life. Structural fires in several of the large industrial facilities in the city are a concern, especially in facilities that use or store hazardous materials.

Public water supply for fire flow in the city is reportedly adequate. The water is supplied from 20 interconnected reservoirs that feed six supply zones using 16-inch diameter water mains. In the event of an earthquake on a nearby fault, however, water lost from damaged tanks could significantly reduce the water resources available to suppress earthquake-induced fires. Damaged tanks and water mains could also limit the amount of water available to residents. Furthermore, groundwater wells can be damaged during an earthquake, also limiting the water available to the community after an earthquake. Therefore, it is of paramount importance that the water storage tanks in the area retain their structural integrity during an earthquake, so water demands after an earthquake can be met. In addition to evaluating and retrofitting water reservoirs to meet current standards, this also requires that the tanks be kept at or near full capacity at all times.

GOAL #4:

Threats to public and private property from urban and wildland fire hazards are reduced in our City.

Policies:

- 1) The City shall require residential, commercial, and industrial structures to implement fire hazard-reducing designs and features.



- 2) The City shall ensure to the extent possible that fire services, such as fire equipment, infrastructure, and response times are adequate for all sections of the city.
- 3) The City shall require all new development in areas with a high fire hazard to provide fire retardant landscaping and project design to reduce their fire hazard, and the City shall take measures to reduce the risk of fire at the Wildland Urban Interface.

Actions:

- 1) Continue to enforce the Uniform Fire Code and Municipal Fire Code Amendments for new construction in fire hazard areas, including the use of fire sprinklers in all new construction more than 200 square feet in area, and encourage existing building owners to install fire sprinklers.
- 2) Continue to require that all new roofing materials be fire resistive and preferably Class A rated. This applies to both new construction and replacement roofs. Encourage residents with existing wood-shingle or unrated roofing materials to upgrade to fire resistive construction, including fire resistive eaves and awnings.
- 3) Require input by the San Bernardino County Fire Department regarding needed fire protection, access, fire department apparatus, and staffing before approval of any proposed high-rise building over 75 feet in height.
- 4) Require intensified construction features on all new structures in the Urban Wildland Interface areas of the city in and at the base of the San Bernardino Mountains and in the Jurupa Mountains. Such features should include 1-hour rated exteriors, non-flammable wood or plastic materials on exteriors, double pane or tempered glazing, solid core doors, non-wood garage doors, no non-fire rated plastic or vinyl window frames, proper screening and orientation of vents, non-combustible/ non-plastic decking and patio covers, no plastic and no combustible rain gutters.
- 5) Encourage the incorporation of ponds in new developments, including golf courses, in the wildland interface area, for use by helicopters.
- 6) Require the continued involvement of the City and County Fire Departments in the planning of all new development, beginning at the Environmental Impact Report phase, to reduce to acceptable levels the fire hazards to developments near the Urban Wildland Interface. Require as a condition of project approval the incorporation of fire safety mitigation measures recommended by the Fire Departments.



- 7) Establish, with assistance from the San Bernardino County Fire Department, a fee schedule, based on risk, for new development and for areas annexed to the City, which will assist in providing adequate funding for additional staffing, stations, and equipment.
- 8) Continue to ensure that there is adequate spacing between new structures.
- 9) Aid the San Bernardino County Fire Department in improving response times to the northern and southern portions of the city.
- 10) Study the feasibility of constructing and staffing an additional fire station with a four-person engine company in the northwestern portion of Fontana, north of the I-15, in the area of Duncan Canyon Road, as that area annexes into the City.
- 11) Conduct a focused Fire Station location study prior to construction of any new fire stations.
- 12) Evaluate the feasibility of placing an additional Ladder-Truck Company in service. There should be one Ladder Company below (south of) the I-10 freeway, and one above (north of) the I-10. Both companies should be dedicated Ladder Truck Companies, rather than performing double duty.
- 13) Install traffic signal pre-emption devices at critical intersections and in all fire apparatus.
- 14) Enter into an automatic aid agreement with the Rancho Cucamonga Fire District, for response from Rancho Cucamonga's planned fire station in the northeastern part of Rancho Cucamonga (near the Hunters Ridge area).
- 15) Conduct, in association with the local water providers, annual fire flow tests, especially in areas of high fire hazard. Address deficiencies in the system as soon as possible.
- 16) Study the availability of secondary water supplies for fire flow needs in an emergency.
- 17) Encourage San Bernardino County to acquire a water-dropping helicopter and have at least one hand crew on duty during the fire season.
- 18) Identify High Fire Hazard Severity Zones in vegetation areas.
- 19) Develop and enforce a vegetation ordinance to reduce the risk in high fire hazard areas. The ordinance shall include Vegetation Management Zones around structures. The recommended Vegetation



Management Zones around structures are as follows: in the northern area of the city, 300 feet wide; in the Jurupa Mountains, 200 feet wide. Zones elsewhere should be a minimum of 30 to 100 feet wide depending upon the risk. Proposed plantings and vegetation in such zones shall be approved by the Fire Department.

- 20) Require management plans for all new development in areas subject to wildfire.
- 21) Require Landscape Maintenance Districts or Vegetation Management Zones around new developments. All ornamental shrubbery and vegetation around all structures and on roadways within 5 miles of any of the identified vegetation areas must be strictly controlled. Roadsides in all vegetative areas should have a 10-foot wide clearance from flammable vegetation on each side.
- 22) Encourage residents to plant and maintain drought-resistant, fire-retardant landscape species on slopes to reduce the risk of brush fire and soil erosion in areas adjacent to canyons; and develop stringent site design and maintenance standards for areas with high fire hazard or soil erosion potential.
- 23) Consider the installation of fuel breaks around the city perimeter in high fire hazard areas (for example, along the front of the Jurupa Mountains).
- 24) Require utility companies to conduct annual vegetation management in power-line right-of-ways.
- 25) Continue the door-to-door engine company fire prevention program in all Urban Wildland interface areas by the San Bernardino County Fire Department.
- 26) Consider making the detonation of fireworks illegal in the city, in order to help prevent structural and/or vegetation fires caused by fireworks.

ISSUE #5: HAZARDOUS MATERIALS

How can the City provide a healthy environment for its residents and visitors, and minimize the potential for contamination from hazardous materials?

Discussion: The unhealthful effects of certain chemicals and substances have led to extensive regulation of hazardous materials. Nevertheless, there is still the potential for hazardous materials to be released into the environment, whether as a result of an accident, carelessness, or intentionally. Two major freeways (I-10 and I-15) extend across portions



of the city of Fontana, and several railroad spurs extend across the study area. Both freeways and many of the railroad spurs are used to transport hazardous materials, posing a potential for spills or leaks from non-stationary sources to occur within city limits.

In addition to these non-stationary sources, the EPA has identified fifteen Superfund sites in the Fontana area; thirteen of these are "archive" or No Further Remedial Action Plan (NFRAP) sites, while two are still on the active list (see Figure 11-6, *Distribution of Hazardous Materials Sites By Census Tract*). The archive sites have been cleaned to levels below the National Priority List levels, and the EPA has determined that no immediate or long-term risks to human health or to the environment are associated with these sites. The two active sites are not on the National Priority List (NPL); one is still being investigated to assess the extent of contamination, while no further site assessment work is reportedly necessary at the second site.

The EPA data available also indicate that there are eighteen large quantity generators, about 130 small quantity generators, and three transporters of hazardous materials in the Fontana area. Twenty-seven facilities in the study area were listed in the Toxic Release Inventory for the year 2000 because they have had at least one release of toxic chemicals into the air or water, or onto the soil. Many of these TRI sites are located in the Sphere of Influence rather than in the city of Fontana, while several others are located in the southwestern, industrial portion of the city. According to data from the State Water Resources Control Board, fifty-four leaking underground storage tank facilities have been reported in the Fontana area. It appears that all cases involved only soil contamination, with no impact to the ground water, presumably because ground water in most of the Fontana area occurs at depths of more than 100 feet.

The Riverside-San Bernardino area experienced good air quality only approximately 40 percent of the time in the year 2000. In fact, the data indicate that this is the metropolitan area in the United States with the highest number of days with ozone levels above the Federal standards. However, the data also show that there has been substantial improvement in this area in the last 10 years. EPA records indicate that there are approximately 130 facilities in the Fontana Area that have a permit to release emissions into the air. These facilities include restaurants, dry cleaners, and other small businesses. The South Coast Air Quality Management District has enforcement oversight and closely monitors the emissions from these facilities to ensure that their annual limits are not exceeded.

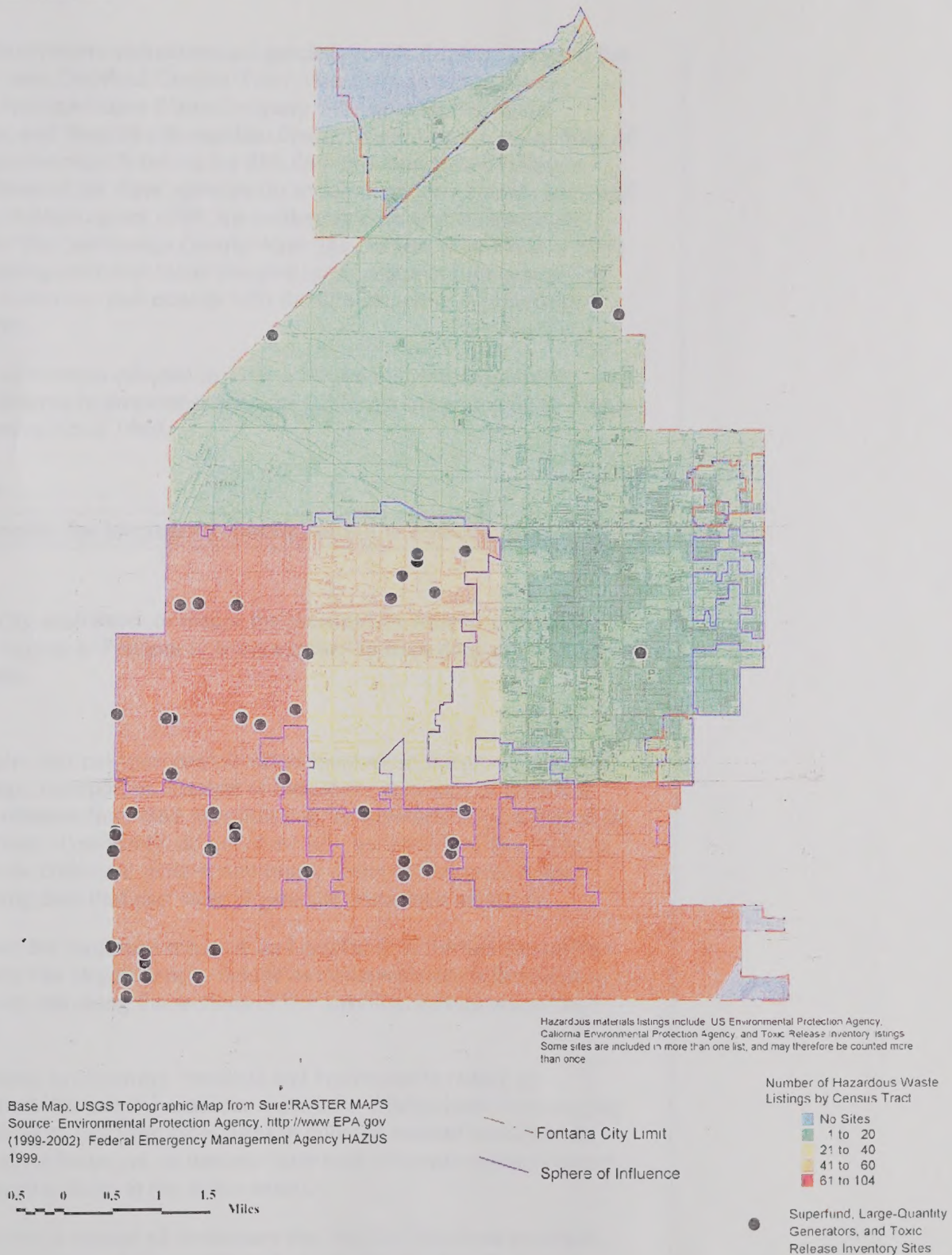


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Distribution of Hazardous Materials Sites by Census Tract

NOTES:

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APPENDIX

This appendix contains information on the various types of hazardous materials that are regulated by the Department of the Environment and Heritage. It is intended to provide a general overview of the types of materials that are regulated, and is not intended to provide a detailed description of the regulations that apply to each type of material.



Figure 1: A map of the State of New South Wales, Australia, showing the locations of various hazardous materials management and control facilities. The map is divided into several regions, and the locations of the facilities are marked with symbols.

Table 1: A table listing the various types of hazardous materials that are regulated by the Department of the Environment and Heritage. The table includes columns for the type of material, the quantity, and the location of the facility.

Table 2: A table listing the various types of hazardous materials that are regulated by the Department of the Environment and Heritage. The table includes columns for the type of material, the quantity, and the location of the facility.

Table 3: A table listing the various types of hazardous materials that are regulated by the Department of the Environment and Heritage. The table includes columns for the type of material, the quantity, and the location of the facility.





Five different water companies or agencies provide drinking water to the Fontana area: Crawford Canyon Water, Cucamonga County Water District, Fontana Union Water Company, Marygold Mutual Water Company, and West San Bernardino County Water District. Only three of these agencies were listed on the EPA Safe Drinking Water Violation Report. None of the three agencies for which there were records have had a health violation since 1993, the earliest date for which records are available. The Cucamonga County Water District was cited twice in 1992 for not taking sufficient water samples in the required time period, but they have been in conformance with the EPA sampling requirements since 1993.

The City of Fontana adopted in 1991 a Household Hazardous Waste (HHW) Element in accordance with the California Integrated Solid Waste Management Act of 1989.

GOAL #5:

The potential for hazardous contamination is reduced in our City.

Policies:

- 1) The City shall strive to reduce the potential for residents, workers, and visitors to Fontana to being exposed to hazardous materials and wastes.

Actions:

- 1) Require that new proposed facilities involved in the production, use, storage, transport or disposal of hazardous materials be located a safe distance from land uses that may be adversely impacted by such activities. Conversely, do not allow new sensitive facilities, such as schools, child-care centers, and senior centers, to be located near existing sites that use, store or generate hazardous materials.
- 2) Assure the continued response and capability of the San Bernardino County Fire Department to handle hazardous materials incidents in the city and along the sections of freeways that extend across the city.
- 3) Continue to encourage residents and businesses to reduce or eliminate the use of hazardous materials. This includes encouraging residents to buy toxic substances in only the amount needed to do the job, or better yet, to use safer non-toxic alternate products that do not pose a threat to the environment.
- 4) Continue to require all businesses that handle hazardous materials above the reportable quantity (refer to Chapter 4 of the Technical Report) to submit an inventory of the hazardous materials that they



manage to the San Bernardino County Fire Department – Hazardous Materials Division.

- 5) Identify City roadways along which hazardous materials are routinely transported. If essential facilities, such as schools, hospitals, child care centers or other facilities with special evacuation needs are located along these routes, identify emergency response plans that these facilities can implement in the event of an unauthorized release of hazardous materials in their area.
- 6) Continue to support the operation of recycling centers that take hazardous substances, such as paint, paint thinner, and used waste oil.

ISSUE #6: DISASTER RESPONSE PLANNING

What can the City do to be better prepared in the event of a disaster?

Discussion: Planning issues pertaining to emergency response, disaster preparedness, and disaster recovery require an assessment of the hazards, identification of functions and resources to handle short-term response, and development of recovery procedures. Earthquakes pose the greatest challenge because they occur with little or no warning, and can set into motion a number of linked events.

The data reviewed indicate that the city of Fontana is susceptible to strong ground motions given its proximity to three active seismic sources. When a disaster occurs, the first few moments are absolutely critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. The first responder must then put into motion relevant mitigation plans to reduce further human and property damage and communicate with the public. According to the State's Standardized Emergency Management System (SEMS), local agencies have primary authority regarding rescue and treatment of casualties, and making decisions regarding protective actions for the community. This on-scene authority rests with the local emergency services organization and the incident commander.

Depending on the type of disaster, several different agencies and disciplines may be called in to assist with emergency response. Agencies and disciplines that can be expected to be part of an emergency response team include medical, health, fire and rescue, police, public works, and coroner. The challenge is to accomplish the work at hand in the most effective manner, maintaining open lines of communication between the



different responding agencies to share and disseminate information, and to coordinate efforts.

Emergency response is to be handled in accordance with SEMS, with individual city agencies and personnel taking on their responsibilities as defined by the City's Emergency Plan. This document describes the different levels of emergencies, the local emergency management organization, and the specific responsibilities of each participating agency, government office, and individuals.

GOAL #6:

Plans for emergency response and recovery from natural and urban disasters are prepared for our City.

Policies:

- 1) The City shall prepare for emergency response and recovery from natural and urban disasters, especially earthquake hazards.

Actions:

- 1) Continue to maintain and update the City's Multi-Hazard Functional Plan as necessary.
- 2) Continue to maintain and update the City's emergency response organization consisting of representatives from all City departments and divisions, County agencies, private businesses, citizens, and other community partners involved in critical and/or community-wide services.
- 3) Maintain mutual aid agreements with neighboring cities and the County of San Bernardino and develop partnerships with other emergency relief organizations.
- 4) Designate emergency shelters, including potential outdoor shelter locations that are often preferred by the Hispanic population.
- 5) Establish traffic control contingency plans by the City's Police Department for disaster routes.
- 6) Coordinate the identification of casualty collection points and police/fire staging areas with local public safety agencies.
- 7) Enhance public awareness and preparedness by encouraging residents to store supplies for self-reliance in the event of isolation.
- 8) Offer education programs for residents and businesses regarding disaster mitigation measures to take prior to, during, and after emergencies.



- 9) Involve the public in the awareness of City emergency response plans, resources, risk reduction and mitigation measures.
- 10) Compile and maintain inventories of facilities with special risks, hazards and needs, that may create special response situations during disasters.
- 11) Continue to participate in regional emergency exercises.
- 12) Support the development of local preparedness plans and multi-jurisdictional cooperation and communication for emergency situations consistent with regional, state, and federal standards, guidelines and/or recommendations.



Chapter 12

Noise Element





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Chapter 12. Noise Element

INTRODUCTION

Purpose of the Element

The General Plan Noise Element provides a systematic approach to identifying and appraising noise problems in the community, quantifying existing and projected noise levels, addressing excessive noise exposure, and community planning for the regulation of noise. This element includes policies, standards, criteria, programs, diagrams, a reference to action items, and maps related to protecting public health and welfare from noise.

State Law Requirements

The Noise Element is a mandatory component of the General Plan pursuant to the California Planning and Zoning Law, Section 65302(f). The element must recognize the guidelines adopted by the Office of Planning and Research pursuant to Section 46050.1 of the Health and Safety Code. It also can be utilized as a tool for compliance with the state's noise insulation standards.

ACHIEVING THE VISION

The Citizens of Fontana are concerned about the effects of noise on their health and serenity and that of future residents. As a part of the Community Visioning Process that shaped this general plan update, citizens and city officials identified goals for the future relating to balancing land uses in our community in order to minimize incompatibilities and provide the range of uses needed to support a high quality of life in the community. These goals are related to the policy direction in the Noise Element of this General Plan.



COMPONENTS OF THE NOISE ELEMENT

Definitions

Following is a list of commonly used terms and abbreviations that may be found within this element or when discussing the topic of noise. This is an abbreviated glossary to be reviewed prior to reading the element. It is important to become familiar with the definitions listed in order to better understand the importance of the Noise Element within the City of Fontana General Plan. Since the disbanding of the State Office of Noise Control in the mid-1990, the State of California Office of Planning and Research General Plan Guidelines can offer further information on other noise-related resources.

- ◆ **Ambient Noise** – The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
- ◆ **CNEL (Community Noise Equivalent Level)** – The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m.
- ◆ **dB (Decibel)** – The unit of measure that denotes the ratio between two quantities that are proportional to power; the number of decibels corresponding to the ratio of the two amounts of power is based on a logarithmic scale.
- ◆ **dBA (A-weighted decibel)** – The A-weighted decibel scale discriminates against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals (zero dBA). The scale ranges from zero for the average least perceptible sound to about 130 for the average pain level.
- ◆ **Intrusive Noise** – That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency and time of occurrence, and tonal or informational content as well as the prevailing noise level.
- ◆ **L50** – The A-weighted sound level that is exceeded 50% of the sample time. Alternatively, the A-weighted sound level that is exceeded 30 minutes in a 60 minute period. Similarly, L10, L25, etc. These values are typically used to demonstrate compliance with noise restrictions included in the City noise ordinance.



- ◆ **Leq (Equivalent energy level)** – The average acoustic energy content of noise during the time it lasts. The Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure, no matter what time of day they occur.
- ◆ **Ldn (Day-Night Average Level)** – The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. Note: CNEL and Ldn represent daily levels of noise exposure averaged on an annual or daily basis, while Leq represents the equivalent energy noise exposure for a shorter time period, typically one hour.
- ◆ **Lmax (Maximum energy level)** – The greatest root-mean-square noise value obtained over the measurement period.
- ◆ **Micropascal** – The international unit for pressure, similar to pounds per square inch. A value of 20 micropascals is used as the standard for the human hearing threshold (zero dBA).
- ◆ **Noise Contours** – Lines drawn around a noise source indicating equal levels of noise exposure. CNEL and Ldn are the metrics used in this document to describe annoyance due to noise and to establish land use planning criteria for noise.

Regulating Noise

The intent of the Noise Element is to set goals to limit/reduce the effects of noise intrusion and to set acceptable noise levels for varying types of land uses. To this end the City has the authority to set land use noise standards and place restrictions of private activities that generate excessive or intrusive noise. However, it should be recognized that the City does not have the authority to regulate all sources of noise within the City and various other agencies may supercede City authority. Furthermore, various types of project funding (e.g., State Highway projects, HUD redevelopment, etc.) could be subject to standards that differ from the City's.

Federal Guidelines and Standards

Federal Highway Administration

Two State Routes, Highland Avenue (SR-210) and Foothill Boulevard (SR-66), bisect the City of Fontana. Additionally Interstate Routes 10, 15, and 210 run through the City. These routes are subject to federal funding and as such are under the purview of the Federal Highway Administration (FHWA). The FHWA has developed noise standards that are typically used for federally funded roadway projects or projects that require either federal or Caltrans review. These noise standards are



based on Leq and L10 values. (Note that L10 is typically about 3 dBA greater than the Leq value.)

The FHWA values are the maximum desirable values by land use type and area based on a "trade-off" of what is desirable and what is reasonably feasible. These values recognize that in many cases lower noise exposures would result in greater community benefits. The FHWA design noise levels are included in Table 12-1.

Table 12-1
FHWA Design Noise Levels

Activity Category	Design Noise Levels ¹		Description of Activity Category
	Leq (dBA)	L10 (dBA)	
A	57 (exterior)	60 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	70 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	75 (exterior)	Developed lands, properties, or activities not included in Categories A or B, above
D	---	---	Undeveloped lands.
E	52 (interior)	55 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

¹ Either Leq or L10 (but not both) design noise levels may be used on a project.

U.S. Environmental Protection Agency

In addition to FHWA standards, the United States Environmental Protection Agency (EPA) has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, an Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an Leq of 55 dBA and interior levels at or below 45 dBA. While these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

In addition to the Leq limitations discussed above, in accordance with Page 2-3 24 CFR, Part 51, Subpart B "Noise Abatement and Control," (US Department of Housing and Urban Development, August 1984), the EPA set 55 dBA Ldn as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program



requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA Ldn, have settled on the 65 dBA Ldn level as their standard. At 65 dBA Ldn, activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

U.S. Department of Housing and Urban Development

The Department of Housing and Urban Development (HUD) first issued formal requirements related specifically to noise in 1971 (HUD Circular 1390.2). These requirements contained standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established three zones. These include:

- 65 dBA Ldn or less - an *acceptable zone* where all projects could be approved,
- exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn - a *normally unacceptable zone* where mitigation measures would be required and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area, and
- exceeding 75 dBA Ldn - an *unacceptable zone* in which projects would not, as a rule, be approved.

HUD's regulations do not include interior noise standards. Rather a *goal* of 45 dBA Ldn is set forth and attenuation requirements are geared towards achieving that goal. HUD assumes that using standard construction, any building will provide sufficient attenuation so that if the exterior level is 65 dBA Ldn or less, the interior level will be 45 dBA Ldn or less. Note that HUD regulations were promulgated solely for residential development requiring government funding and are not related to the operation of other sensitive land uses such as schools or churches.

Federal Railroad Administration

The EPA is charged with the regulation of railroad noise under the Noise Control Act.

No federal regulations specify absolute levels of acceptable noise that apply directly to railroad noise and compatible land uses along rail lines. Table 12-2 summarizes the EPA railroad noise standards that set operating noise standards for railroad equipment and set noise limit standards for new equipment. (Note that these values are in terms of the



Lmax, and can be considerably greater than the Leq typically used in the measurement of obtrusive noise.)

Table 12-2
Summary of EPA/FRA Railroad Noise Standards

Noise Sources	Operating Conditions	Noise Metric	Measured Distance in Feet	Standard (dBA)
Non-Switcher Locomotives built on or before 12/31/79	Stationary	Lmax (Slow) ¹	100	73
	Idle Stationary	Lmax (Slow)	100	93
	Non-Idle Moving	Lmax (Fast) ²	100	95
Switcher Locomotives plus Non-Switcher Locomotives built after 12/31/79	Stationary	Lmax (Slow)	100	70
	Idle Stationary	Lmax (Slow)	100	87
	Non-Idle Moving	Lmax (Fast)	100	90
Rail Cars	Speed ≤ 45 mph	Lmax (Fast)	100	88
	Speed > 45 mph	Lmax (Fast)	100	93
	Coupling	Adj. Avg. Max.	50	92

¹ A slow exponential-time-weighting is used.

² A fast exponential-time-weighting is used.

Source United States Environmental Protection Agency Railroad Noise Emission Standard (40 CFR Part 201)

State Guidelines and Standards

California Department of Health Services

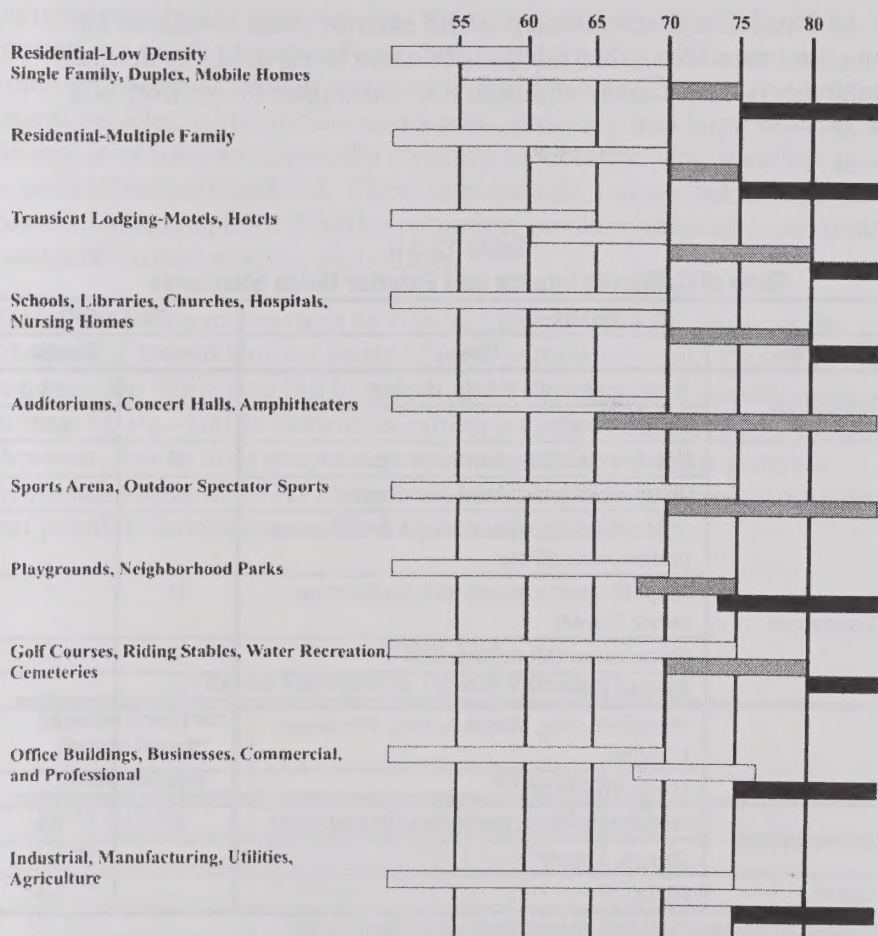
The California Department of Health Services' (DHS) Office of Noise Control studied the correlation of noise levels and their effects on various land uses. As a result, the DHS established four categories for judging the severity of noise intrusion on specified land uses.

Figure 12-1 presents a land use compatibility chart for community noise prepared by the California Office of Noise Control and adopted by the City of Fontana to demonstrate land-use compatibility. While the chart is presented in terms of the Ldn or CNEL, the City prefers the use of the CNEL descriptor, as it is slightly more conservative (i.e., restrictive), in protecting sensitive land uses. It identifies "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" exterior noise levels for various land uses. A "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements. Note that there is some overlap between the various categories.



Land Use Compatibility for Community Noise Exposure

LAND USE CATEGORY COMMUNITY NOISE EXPOSURE LEVEL Ldn or CNEL, dBA



Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Convassational construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.

Clearly Unacceptable:
New construction or development should generally not be undertaken. Construction exists to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: California Office of Noise Control

Figure 12-1 Land Use Compatibility

While this land use compatibility chart is based on a 24-hour value, the City is aware that some land uses are not occupied on a 24-hour basis, and a descriptor (such as Ldn or CNEL) may be overly restrictive in siting these types of sensitive land uses. Such uses may include, but are not limited to, schools, libraries, and churches. In these cases, a more appropriate standard would consider the time of occupancy of the land use. Here, the City recommends the use of a 65 dBA, 12-hour Leq



(Leq(12)) that includes those hours of actual use. (If a facility is to be used in excess of 12 hours per day, the CNEL standard should be used.)

Table 12-3 includes the State interior and exterior noise standards for varying land uses. Note that the exterior noise levels are to be attained in "habitable" exterior areas and need not encompass the entirety of a property.

Table 12-3
State of California Interior and Exterior Noise Standards

Land Use		CNEL (dBA)	
Categories	Uses	Interior ¹	Exterior ²
Residential	Single and multi-family, duplex	45 ³	65
	Mobile homes	---	65 ⁴
Commercial	Hotel, motel, transient housing	45	---
	Commercial retail, bank, restaurant	55	---
	Office building, research and development, professional offices	50	---
	Amphitheater, concert hall, auditorium, movie theater	45	---
	Gymnasium (Multipurpose)	50	---
	Sports Club	55	---
	Manufacturing, Warehousing, Wholesale, Utilities	65	---
	Movie Theaters	45	---
Institutional/Public	Hospital, school classrooms/playgrounds	45	65
	Church, library	---	---
Open Space	Parks	---	65

¹ Indoor environment excluding bathrooms, kitchens, toilets, closets, and corridors

² Outdoor environment limited to:

Private yard of single-family dwellings

Multi-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)

Mobile home parks

Park picnic areas

School playgrounds

Hospital patios

³ Noise level requirement with closed windows. Mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code

⁴ Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

Vibration

Another community annoyance related to noise is vibration. As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized by displacement, velocity, and/or acceleration. Typically, particle velocity (measured in inches or



millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration.

Vibration can be felt outdoors, but the perceived intensity of vibration impacts are much greater indoors, due to the shaking of the structure. Some of the most common sources of vibration come from trains and/or transit vehicles, construction equipment, airplanes, and large vehicles. Several land uses are especially sensitive to vibration, and therefore have a lower vibration threshold. These uses include, but are not limited to, concert halls, hospitals, libraries, vibration-sensitive research operations, residential areas, schools, and offices.

Table 12-4, Human Reaction to Typical Vibration Levels, presents the human reaction to various levels of peak particle velocity. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies. However, due to their suspension systems, city buses often generate frequencies around 30 Hz at high vehicle speeds. It is more uncommon, but possible, to measure traffic frequencies above 30 Hz.

Table 12-4
Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (inches/second)	Human Reaction
0.0059-0.0188	Threshold of perception, possibility of intrusion
0.0787	Vibrations readily perceptible
0.0984	Continuous vibration begins to annoy people
0.1968	Vibrations annoying to people in buildings
0.3937-0.5905	Vibrations considered unpleasant when continuously subjected and unacceptable by some walking on bridges.
Source: Caltrans, 1992	

EXISTING CONDITIONS

As modern transportation systems continue to develop and human dependence upon machines continues to increase, the general level of noise in our day-to-day living environment rises. In the City of Fontana, residential areas near airports, freeways, and railroads are being adversely affected by annoying noise levels. Other activities such as construction, operation of household power tools and appliances, and industry, also contribute to increasing background noise.



The City of Fontana is a developing community that relies heavily upon the modern technological conveniences of American society to thrive and succeed as a pleasant and desirable place to live and work. Without such necessities as air-conditioning, heating, and cars, living in an urban environment becomes difficult, if not impossible. Fortunately, these amenities are available to the residents of Fontana and are used everyday, often all day long. Unfortunately, these technological advances can come at a high price to residents' and visitors' ears.

Noise, which may be perceived by some as being annoying, may not be noticed at all by others. It is also important to note that people who move into an area where a noise source already exists (such as near an existing highway) are often more tolerant of that noise source than when a new noise generator locates itself in an established area that may be noise-sensitive (such as a factory that is constructed near an established residential community).

Noise within the City of Fontana is generated by numerous sources, the foremost of which is vehicle travel on public roadways. Aircraft operations associated with the operation of Ontario International Airport and the Rialto Airport also add to the ambient noise as do railroad operations conducted along both the Metrolink and Union Pacific Railroad lines. The City also includes stationary noise sources including factories, the California Speedway, and various school sites.

The City is also subject to temporary noise during its growth. As the various properties within the City are developed, or redeveloped, construction will temporarily raise the ambient noise levels above the prevailing background noise. These sources have the potential to affect noise-sensitive receptors such as residences, schools, and hospitals. Figure 12-2, *Common Noise Sources and Noise Levels*, illustrates some noise producers that can be found within the City of Fontana, as well as their corresponding noise measurements. The following sections contain a discussion of the various noise sources within the City.

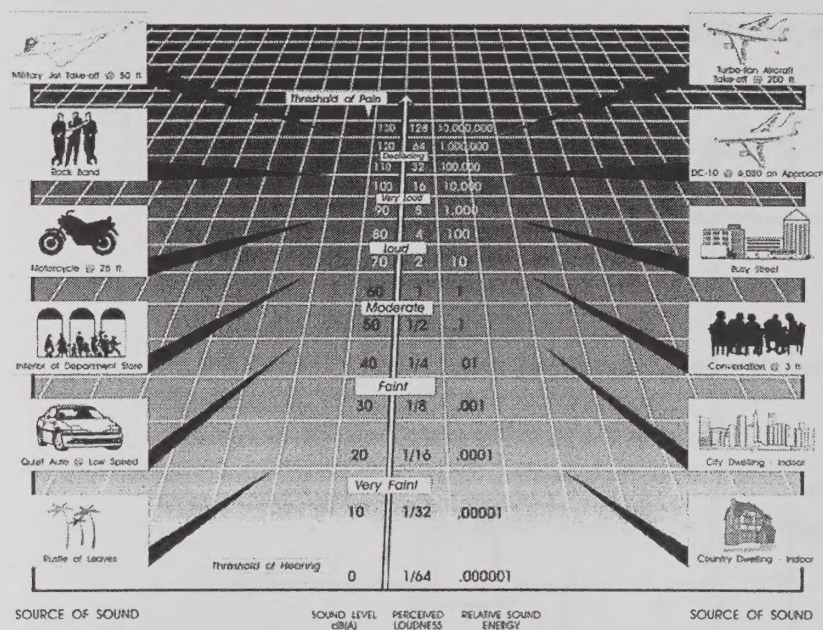


Figure 12-2 Common Noise Sources and Noise Levels

Mobile-Source Noise

Traffic Noise

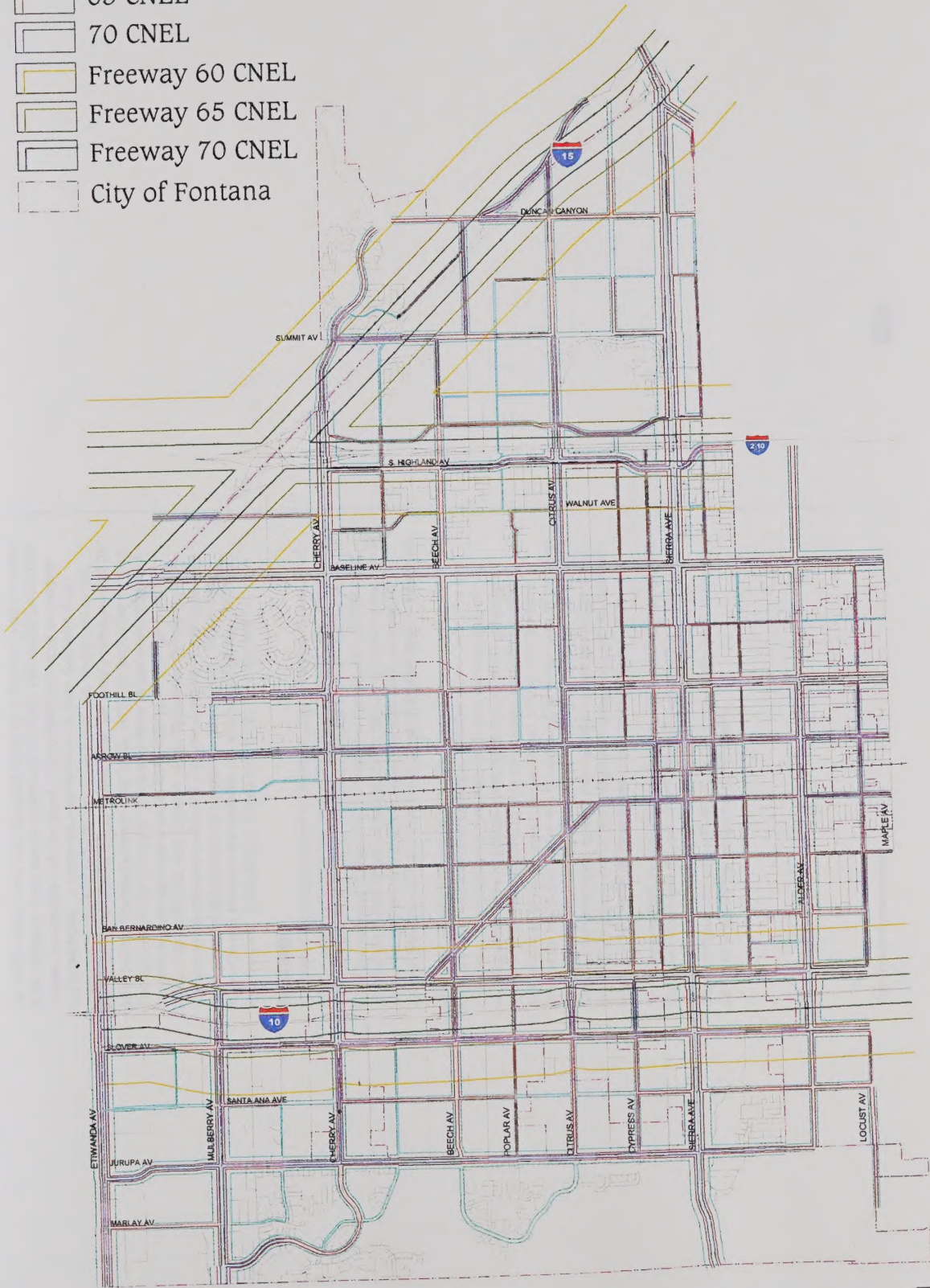
The most prevalent source of noise within the City of Fontana is from the operation of on-road motor vehicles that operate on City streets and the local freeways. Traffic noise varies in how it affects land uses depending upon the type of roadway, and the distance of the land use from that roadway. Some variables that affect the amount of noise emitted from a road are speed of traffic, flow of traffic, and type of traffic (e.g. heavy trucks versus automobiles). Another variable affecting the overall measure of noise is a perceived increase in sensitivity to vehicular noise at night. Appendix G contains tables and figures that illustrate existing and forecasted noise from major roadways throughout the City. The data are presented in terms of the CNEL. The existing noise contours are based on computer modeling and were derived from 2003 traffic levels. Future conditions represent build-out under the General Plan. Future noise contours are also mapped on Figure 12-3, *Future Noise Contours*.



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Future Noise Contours

-  60 CNEL
-  65 CNEL
-  70 CNEL
-  Freeway 60 CNEL
-  Freeway 65 CNEL
-  Freeway 70 CNEL
-  City of Fontana




1" = 4,500'



The traffic noise levels were modeled using the Caltrans Sound32 version of the Highway Noise Model (FHWA-RD-77-108). The model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute Leq noise levels. A computer code has been written that uses data generated by the EMFAC2002 Air Emissions Model distributed by the California Air Resources Board to determine the hourly breakdown of the daily traffic. The total average daily traffic (ADT) for each roadway was then converted into 24 hourly values and these values were weighted for the evening and nighttime periods and summed to provide a CNEL value. The traffic mix was based on field observation during 14 noise measurements obtained within the City over a period of two days. The noise monitoring locations are mapped in Figure 12-4. Where state highways and freeways are modeled, the published Caltrans traffic mix was retained. Methodology is discussed further in Appendix G.

Aircraft Noise

The City of Fontana is located in the flight path of Ontario International Airport (ONT) located to the west of the City of Fontana. The flight path follows Santa Ana Avenue. First quarter noise contours for the year 2002 are included in Figure 12-5. Note that the airport's 65 dBA CNEL follows Santa Ana Avenue and lies within the City of Fontana just east of Etiwanda Avenue. The area within this 65 dBA CNEL is zoned for general industrial and the land use is compatible with airport operations.

The "new" Ontario International Airport opened September 27, 1998 and includes two new terminals totaling of 530,000 square feet. The new terminals are eight times larger than the former terminal and can accommodate up to 10 million passengers a year. When passenger traffic at ONT reaches 10 million in two consecutive years, a third terminal is to be constructed. As the airport is further utilized and developed, additional flights will be added. This would then be expected to extend the 65 dBA CNEL further into the City of Fontana. On the other hand, as more stringent aircraft noise regulations are promulgated and jets become quieter due to technological advancements, noise contours could remain similar or even be reduced from existing contours.

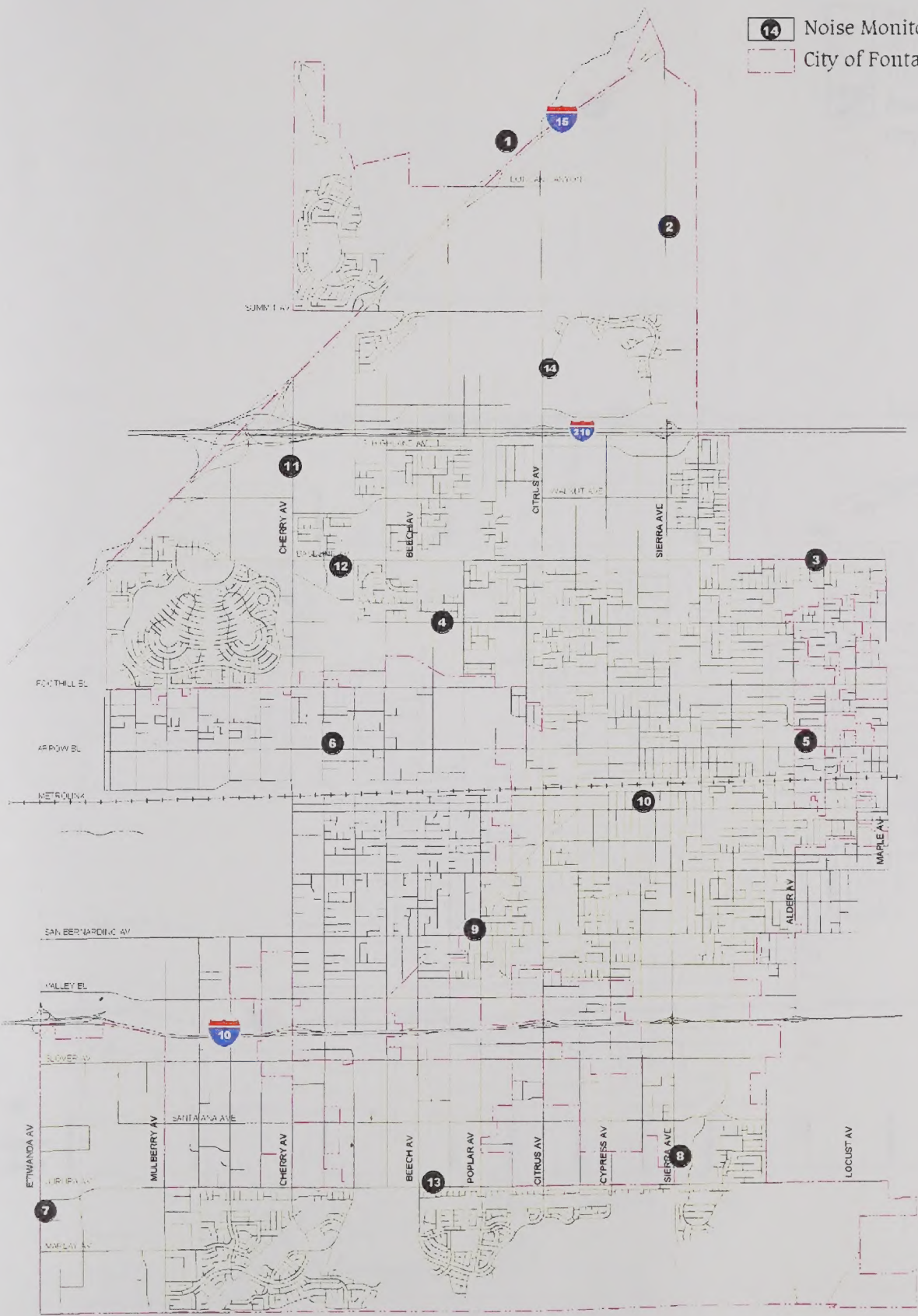
In addition to ONT, Fontana is over-flown by operations associated with the Rialto Municipal Airport. The Art Scholl Memorial/Rialto Municipal Airport (formerly Miro Field) is located on Linden Avenue north of Baseline Road. Portions of the runway lie immediately north of Fontana City area proposed for residential development.



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Noise Monitoring Locations

- 14 Noise Monitoring Location
- City of Fontana

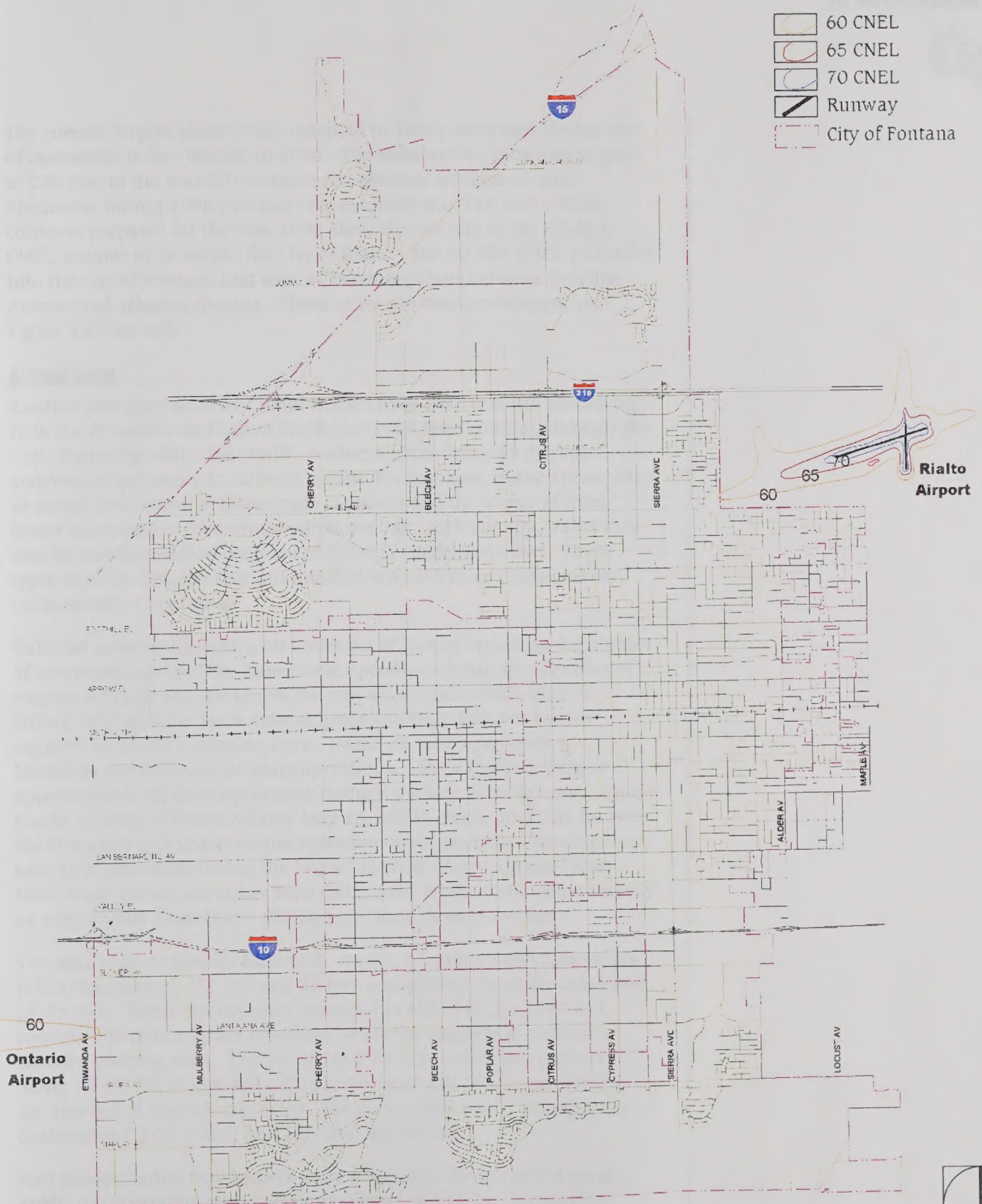


1" = 6,500'

1. The first location is the same as the second location.



Airport Noise Contours



Source: City of Rialto; Los Angeles World Airports, Airport Impact Area, First Quarter, 2002.

1" = 6,500'

1.0000
1.0000
1.0000
1.0000
1.0000
1.0000

1.0000
1.0000



1.0000

1.0000

1.0000



The current Airport Master Plan (adopted in 1992) estimated the number of operations to be 190,000 in 1990. The number was projected to grow to 286,000 in the year 2010. However, the best estimate of total operations during 1996 (the last year counted) was 128,000. Noise contours prepared for the year 1990 show the entirety of the 65-dBA CNEL contour to lie within the City of Rialto. The 60 dBA CNEL protrudes into the City of Fontana just west of Encinitas Court between Baseline Avenue and Whatley Avenue. These noise contours are mapped on Figure 12-5 as well.

Railroad Noise

Another prevalent source of noise in the City is from railroad operations. Both the Metrolink and Union Pacific have rail lines running through the City. Currently, daily train traffic produces noise that may disrupt activities in proximity to railroad tracks. For example, trains are required to sound their horns at all at-grade crossings and the sound of train horns is a common occurrence within the City. Additionally, trains may also be required to slow their speed through residential areas. These types of noise disturbances can interfere with activities conducted on noise-sensitive land uses.

Railroad noise is dependant on a number of factors including the number of operations per day, the times these operations occur, the numbers of engines and railcars, the speed, the type of rail (i.e., continuous or bolted), and whether there exist at grade crossings that require the engineer to sound a warning horn. Based on routing schedules, Metrolink currently has 29 daily operations. Union Pacific averages approximately 32 daily operations through the City (John Bromley, Union Pacific Director of Public Affairs, May 15, 2003). Noise contours for both the Metrolink and Union Pacific operations were calculated in accordance with HUD procedures using the "Wyle" Method. Although the "Wyle" Method calculates Ldn rather than CNEL noise levels, CNEL values would be only slightly (less than 1 dBA) greater than those presented.

The data indicate that for Metrolink, the 60, 65, and 70 dBA Ldn values fall at distances of 172, 80, and 37 feet, respectively, from the centerline of the rails. These distances are extended to 683, 317, and 147 feet, respectively, near at-grade crossings where the engineer is required to sound a warning horn. The 60, 65, and 70 dBA Ldn noise contours along the UP fall at distances of 796, 370, and 172 feet, respectively in the absence of at-grade crossings. These crossings would extend these contours to 2,719, 1,262, and 586 feet, respectively.

Rail transportation may become more popular in the future if a mass public transportation system is implemented within San Bernardino County. Additionally, augmented operations associated with the Alameda Corridor could increase freight traffic through the City. Finally,



as the City increases the level of industrial use, new rail trips could be brought into the City to accommodate the import of raw materials and export of finished goods and products.

Stationary Source Noise

A stationary noise producer is any entity in a fixed location that emits noise. Stationary noise producers are common in many noise-sensitive areas. Motors, appliances, air conditioners, lawn and garden equipment, and power tools are often found in residential neighborhoods, as well as on or near the properties of schools, hospitals, and parks. Furthermore, school playground activities represent a source of stationary noise that is often situated adjacent to residential properties. Industrial and manufacturing facilities are also stationary noise producers that may affect sensitive land uses. Furthermore, while noise generated by the use of motor vehicles over public roads is preempted from local regulation, the City considers the use of these vehicles to be a stationary noise source when operated on private property such as at a truck terminal or warehousing facility.

At the present time, the City has well demarked general industrial areas. These areas are buffered from residential uses through land use zoning that places either light industrial or commercial uses between the major manufactures involved in heavy industrial uses and local residents, and noise intrusion on conforming land uses is not a problem at this time.

California Speedway

One major attraction in the City is the California Speedway located in the industrial area north of San Bernardino Avenue and west of Cherry Avenue. The County operating permit requires that the racetrack adhere to County-mandated noise levels for an industrial area. The track is not allowed to exceed a noise level of 70 decibels during any day or night operation. However, the noise level cannot exceed 45 decibels in any neighboring residential area from the hours of 10:00 p.m. to 7:00 a.m. The racetrack is allowed to exceed the noise levels only during six scheduled races throughout the year. The County-issued permit bars any racing during the 10:00 p.m. to 7:00 a.m. period.

Schools

While considered as a sensitive land use, schools can be a source of nuisance noise on neighboring residential uses. Noise produced by children at play in a schoolyard can be on the order of 74 dBA Leq as measured at a distance of 50 feet. High schools may include stadiums used for athletic events. These may or may not include night lighting as well as the use of public address systems and can generate substantial noise levels during the day and/or evening. Noise produced on school



grounds is typically exempted from regulation under a city's municipal code, but the City of Fontana has no such exemption. (The City's noise ordinance does prohibit the creation of any excessive noise adjacent to any school while the premises are in use.) As further development occurs within the City, more schools would be constructed and existing schools could be expanded further elevating this potential problem.

Noise Sensitive Land Uses

A series of land uses have been deemed sensitive by the State of California. These land uses require a serene environment as part of the overall facility or residential experience. Many of these facilities depend on low levels of sound to promote the well being of the occupants. These uses include, but are not limited to; schools, hospitals, rest homes, long term care facilities, mental care facilities, residential uses, places of worship, libraries, and passive recreation areas. Activities conducted in proximity to these facilities and/or the placement of new sensitive facilities must consider the noise output, and ensure that they don't create or expose sensitive uses to unacceptable noise levels.

Noise Compatibility

The Noise Element of the General Plan is closely related to the Land Use Element because of the effects that noise has on sensitive land uses. Noise-producing land uses must be compatible with adjacent land uses in order for the Land Use Plan to be successful. If existing land uses emit noise above a certain level, and are not compatible with one another, noise attenuation devices or measures must be used to mitigate the noise to acceptable levels both indoors and outdoors. In cases of new development, the placement of noise-sensitive land uses is integral to a successful community.

Relationship to other General Plan Elements

Noise is a direct result of vehicle travel on the roadways, as well as from off-road sources, including aircraft and railroad operations. As such, the Noise Element has a direct relationship with other elements included in the General Plan. When integrated with the Noise Element, the Land Use Element will show land uses in relation to future projected noise contours. In this way, compatible and incompatible land uses may be identified. Furthermore, the Noise Element relates to the Circulation Element since the circulation system is the primary source of noise throughout the City. Noise exposure will be a factor in the location and design of new arterials, and the mitigation of noise from existing arterials in relation to existing and planned land uses.



Since residential land uses are noise sensitive, the information provided in the Noise Element must also be considered in the planning of future housing developments, as discussed in the Housing Element. The Noise Element also relates to the Open Space/Conservation/Recreation Element since excessive noise may have a detrimental effect on the enjoyment of open spaces. Additionally, open space areas may be used as buffers to reduce noise levels at more noise sensitive areas.

The following policies protect noise-sensitive land uses from noise emitted by outside sources, and prevent new projects from generating adverse noise levels on adjacent properties.

ISSUES, GOALS, POLICIES & ACTIONS

ISSUE #1 NOISE AND LAND USE PLANNING CONNECTION

How can the City ensure that its sensitive areas and land uses are not subject to excessive noise?

Discussion: As the City becomes more developed over time, more traffic will be generated from its internal land uses. Furthermore, many areas that are currently undeveloped will receive new, sensitive uses. As build-out continues and "prime" real estate used up, development would be expected to occur in less favorable areas (from a noise perspective). Additionally, residential infill will place sensitive uses more proximate to roadways and transportation corridors. Impacts associated with this development may be mitigated through those measures that reduce vehicle-generated noise (discussed below), but proper land use planning is also crucial.

GOAL #1

Our City protects its sensitive land uses from excessive noise through diligent planning.

Policies:

- 1) New sensitive land uses shall be prohibited in incompatible areas.
- 2) Noise-tolerant land uses shall be guided into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of the adjacent airports.



- 3) The following uses shall be considered noise-sensitive and discouraged in areas in excess of 65 dBA CNEL:
 - Residential Uses;
 - Hospitals;
 - Rest Homes;
 - Long Term Care Facilities; and
 - Mental Care Facilities;
- 4) The following uses shall be considered noise-sensitive and discouraged in areas in excess of 65 Leq(12):
 - Schools;
 - Libraries;
 - Places of worship; and
 - Passive Recreation Uses
- 5) Where sensitive uses are to be placed along transportation routes, mitigation shall be provided to ensure compliance with State mandated noise levels.
- 6) The State of California Office of Planning and Research General Plan Guidelines shall be followed with respect to acoustical study requirements.
- 7) Noise spillover or encroachment from commercial, industrial and educational land uses shall be minimized into adjoining residential neighborhoods or noise-sensitive uses.

Actions:

- 1) Review all development applications for consistency with the standards and policies of the Noise Element of the General Plan as well as the City noise ordinance.
- 2) Discourage the development of new sensitive land uses (unless mitigatable) within 200 feet of any freeway or Metrolink corridor and within 500 feet of the Union Pacific rail corridor. (Note that this measure would also mitigate any potential vibration impacts as feasible.)
- 3) Install as feasible noise mitigation features (e.g., sound walls) where rail or freeway operations impact existing and new adjacent residential or other noise-sensitive uses.
- 4) Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 dBA CNEL limit. These standards are utilized in conjunction with



the Uniform Building Code by the City's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.

- 5) Require developers to consider the composite noise from all sources (e.g., on-road vehicles, aircraft, and railroad) when siting new sensitive development.
- 6) Encourage developers to use the build-out, on-road noise contour map to protect noise-sensitive land uses from high levels of noise for sensitive development in excess of 0.5 mile from any railroad corridor or within 0.5 mile of the 65 dBA CNEL from any airport operations.
- 7) Within 0.5 mile of any railroad corridor or 65 dBA CNEL from aircraft operations, require developers to perform and submit site specific noise studies. Noise level measurements should be of at least 15 minutes in duration and should include simultaneous vehicle counts on adjacent roads so that more accurate vehicle ratios may be used in modeling ambient noise levels. Actual 24-hour CNEL noise measurements may be obtained in lieu of modeling, but must ultimately consider future growth within the City.
- 8) Ensure that sensitive use developers are using the most current airport land use compatibility noise contour maps in the environmental review process.
- 9) Encourage sensitive-use developers to utilize natural barriers such as hills and berms to assist in noise reduction, to reduce noise in habitable exterior areas through building design that provides acoustical shielding, and to consider the potential impacts from schoolyard activities and provide adequate mitigation.
- 10) Where development is to occur in areas in excess of 65 dBA CNEL, ensure that developers attain a 65 dBA CNEL in habitable exterior areas through the use of 1) noise buffers such as extended setbacks (preferred) or 2) berms and/or block walls.

ISSUE #2 NOISE AND TRANSPORTATION CONNECTION

How can the City reduce the effects of transportation-related noise on its residents/occupants?

Discussion: Within the City of Fontana are a number of transportation-related noise sources including freeways, major arterials, collector roadways, aircraft overflights, and railroad operations. These sources are the major contributors of noise in Fontana. Cost effective strategies



to reduce their influence on the community noise environment are an essential part of the Noise Element.

Local government has little direct control of transportation noise at the source. These levels are set by State and Federal agencies. However, the City does have some control over transportation noise that exceeds State and/or federal standards (such as from a defective muffler or an excessively loud car stereo).

The most effective method the City has to mitigate transportation noise is through reducing the impact of the noise onto the community through noise barriers and site design review. The effect of a noise barrier is critically dependent on the distance between the noise source and the receiver. A noise barrier effect occurs when the barrier penetrates the "line of sight" between the source and receiver. The greater the penetration the greater the noise reduction.

Another way in which the City can control vehicle noise is through speed reduction. A change of just 5 mph can change the resultant noise by approximately one to two dBA. The difference in noise associated with a reduction of 10 mph reduction could be roughly equivalent to reducing the traffic volume by one-half.

The City also has some control over traffic-generated noise through weight limitations. Medium trucks, (i.e., those with a gross vehicle weight between 5 and 13.25 tons) produce as much acoustical energy as approximately 5 to 16 automobiles depending on the speed with slower speeds demonstrating the greater differential. Similarly, heavy trucks (i.e., those with a gross vehicle weight in excess of 13.25 tons) produce as much acoustical energy as 10 to 60 automobiles again with slower speeds resulting in the greatest differential.

Finally, the City can reduce traffic-generated noise by ensuring that street paving is maintained and bumps and dips are eliminated. Poor paving causes vehicles to bounce and this bouncing exacerbates the noise due to the rattling of the vehicle. This is especially important along those routes that realize augmented volumes of truck traffic.

GOAL #2

Our City has a diverse and efficiently operated ground transportation system that generates the minimum feasible noise on its residents.

Policies:

- 1) All noise sections of the State Motor Vehicle Code shall be enforced.



- 2) On-road trucking activities shall be regulated in the City to ensure noise impacts are minimized.
- 3) Roads shall be maintained such that the paving is in good condition and free of cracks, bumps, and potholes.
- 4) Noise mitigation measures shall be included in the design of new roadway projects in the City.
- 5) Development that generates increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses shall provide appropriate mitigation measures.
- 6) Noise mitigation practices shall be employed when designing all future streets and highways, and when improvements occur along existing highway segments. These mitigation measures will emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.

Actions:

- 1) Work with local and neighboring law enforcement officials and the California State Highway Patrol to ensure enforcement of the State Motor Vehicle noise standards. Issue "fix it" citations to vehicles observed to create excessive noise due to modification or mechanical failure.
- 2) Develop local legislation to cite those vehicles observed to operate excessively loud car audio systems.
- 3) Develop local legislation to promote the citing of unmanned vehicles observed idling at the roadside.
- 4) Disallow/discourage the use of "Jake brakes" adjacent to residential areas.
- 5) Place a 5 ton gross vehicle weight limit on through traffic in residential and sensitive areas.
- 6) Post and enforce residential speed limits at 25 mph.
- 7) Post and enforce a speed limits at 25 mph or the lowest practical speed adjacent to other sensitive uses (e.g., hospital zone).
- 8) Require that new road projects consider the efficacy of using the most current "quiet" asphalt.
- 9) Work with City staff and Caltrans to ensure that all roadways are adequately maintained and paving is free of cracks, bumps, and potholes.



- 10) During the environmental review process, require that industrial and commercial projects adequately consider the percentage/number of trucks added to the road (as opposed to just the total daily traffic volumes).
- 11) Require that new road projects mitigate noise to within 5 dBA of existing levels if the noise level remains within the goals of the General Plan Noise Element (Figure 12-1) or 3 dBA of existing levels if the noise exceeds or would exceed these goals at any existing sensitive land uses or any vacant areas slated for subsequent sensitive development.
- 12) Encourage the development and use of alternative transportation modes including bicycle paths and pedestrian walkways to minimize vehicular noise within and adjacent to sensitive receptor areas.
- 13) Actively participate in the development of noise abatement plans for freeways and rapid transit.
- 14) Restrict the use of motorized trail bikes, mini-bikes, scooters, skateboards, and other off-road vehicles in areas of the City except where designated for that purpose. Enforce strict operating hours for these vehicles in order to minimize noise impacts on sensitive land uses adjacent to public trails and parks. Cite users of these vehicles who use them on designated bike paths.

ISSUE #3 NON-TRANSPORTATION NOISE AND LAND USE CONNECTION

How can the City ensure that its sensitive areas and land uses are not subject to excessive "spill-over" noise?

Discussion: The City currently has a diverse wealth of land uses, most of which generate their own noise. Industrial facilities generate noise through various processes that involve the use of heavy equipment and machinery. However, even commercial facilities and residential units can generate noise from the use of heating, ventilating, and air conditioning (HVAC) units. Restaurants, bars, and entertainment establishments may also use sound reinforcement equipment that operates well into the night. Residential areas are also subject to noise from the use of pool and spa pumps, as well as landscape maintenance equipment. Schoolyard activities, barking dogs, and residential parties can also be sources of nuisance noise.

Mixed use areas that place more sensitive residential uses alongside commercial uses can present their own problems. A mixed use structure could simultaneously serve as both a commercial and residential land use. This then presents a disparity and it is difficult to determine an appropriate standard. Requiring that the commercial aspect meet a



residential standard could make commercial operations difficult and offers an unfair competitive advantage to a similar operation that is placed in a dedicated commercial zone. Alternatively, applying a commercial standard to a mixed-use project could result in unacceptable noise levels at the residential portion of the structure/site. Still, mixed-use projects offer several advantages from both an air quality and transportation perspective, and should be encouraged.

Another source of “non-transportation” noise comes from the operations of trucks and trains within the City. As previously mentioned, the operation of railroad trains and heavy trucks is preempted from local noise regulation while operating on public roads and dedicated right-of-ways. However, noise is also generated by operations (e.g., idling, loading, and unloading) that occur at the facility. Once on private property, these sources are no longer considered preempted and the City has authority to regulate this noise if it “spills” into the adjacent areas.

Finally, construction in all land use zones will temporarily elevate noise. The City recognizes that construction is a necessity and noise control for construction is limited. Still, various measures are available to reduce this nuisance (and potentially hazardous) noise when necessary.

GOAL #3

Our City’s residents are protected from the negative effects of “spill over” noise in our community.

Policies:

- 1) Residential land uses and areas identified as noise sensitive shall be protected from excessive noise from non-transportation sources including industrial, commercial, and residential activities and equipment.
- 2) Projects located in commercial areas shall not exceed stationary-source noise standards at the property line of proximate residential or commercial uses, as appropriate.
- 3) Industrial uses shall not exceed commercial or residential stationary-source noise standards at the most proximate land uses, as appropriate. (Industrial noise may spill over to proximate industrial uses so long as the combined noise does not exceed the appropriate industrial standards.)
- 4) Non-transportation noise shall be considered in land use planning decisions.



- 5) Construction shall be performed as quietly as feasible when performed in proximity to residential or other noise sensitive land uses.

Actions:

- 1) Establish and enforce a new community noise ordinance that clearly defines allowable levels of noise intrusion on adjoining land uses.
- 2) Ensure that the new noise ordinance considers the State-mandated exterior and interior noise level standards.
- 3) Require that on-site truck and railroad traffic for existing and new facilities be subject to stationary source noise regulations to be included in the ordinance.
- 4) Ensure that existing facilities comply with the new ordinance through Code Enforcement.
- 5) Continue to recommend that the County of San Bernardino enforce the current noise restrictions imposed on the California Speedway.
- 6) Require that detailed and independent acoustical studies be conducted for any new or renovated land uses or structures determined to be potential major stationary noise sources.
- 7) Require major stationary noise-generating sources to be located within 500 feet of any zoned residential areas to install additional noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest extent practicable prior to the approval and/or issuance of new Conditional Use Permits for said facilities.
- 8) Require that new industrial and commercial land uses consider the noise from on-site operations (including unloading/loading activities) and its potential impacts on vacant land slated for subsequent sensitive use development during the environmental review process.
- 9) Require that new industrial and commercial land uses design their sites so as to route truck/train traffic as far as possible from adjoining, more sensitive uses. Alternatively, require these facilities to provide acoustic shielding (e.g., sound walls) to protect more sensitive land uses from on-site vehicle movement.
- 10) Require that new industrial and commercial land uses orient their loading docks so as to maintain the maximum distance from adjoining, more sensitive land uses. Alternatively, require these facilities to provide acoustic shielding (e.g., sound walls of enclosed docks) for on-site loading operations.



- 11) Require schools to meet the stationary noise standards for the zoned land use any proximate sensitive land uses. This may require that schools include sound walls or in the case of new facilities, orient their athletic fields away from sensitive adjoining land uses.
- 12) Require that schools terminate any outdoor athletic or social events (e.g., graduation ceremony) prior to 10:00 p.m. if conducted within 500 feet of any sensitive land uses. Alternatively, require that the school obtain a noise variance for these activities.
- 13) Establish acceptable standards for residential noise sources such as, but not limited to, leaf blowers, audio equipment, and boisterous conduct.
- 14) Require that new residential development include the most current and quiet stationary noise sources such as air conditioners and swimming pool equipment.
- 15) Require that commercial and residential mixed-use structures minimize the transfer or transmission of noise and vibration from the commercial land use to the residential land use.
- 16) Minimize the generation of excessive noise level impacts from entertainment and restaurant/bar establishments into adjacent residential or noise-sensitive uses through compliance with the noise ordinance.
- 17) Include and enforce provisions for such things as residential parties, barking dogs, boisterous conduct, etc. in the noise ordinance.
- 18) Ensure that construction activities are regulated to established hours of operation to be included in the noise ordinance.
- 19) Condition subdivision approval within 500 feet of developed/occupied noise-sensitive land uses by requiring the developer to submit a construction-related noise mitigation plan to the City for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:
 - a. Temporary noise attenuation fences;
 - b. Preferential location of equipment; and
 - c. Use of current noise suppression technology and equipment.



- 20) Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- 21) To mitigate both noise and vibration, require that any pile driving within 1,000 feet of any developed/occupied sensitive land use be subject to those construction requirements set for construction within 500 feet of these land uses.



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Chapter 13

Air Quality Element





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Chapter 13. Air Quality Element

INTRODUCTION

Purpose of the Element

Adverse air quality is a critical environmental concern in Fontana. In the past, pollutants from the former Kaiser Steel Mill (now California Steel) greatly contributed to Fontana's air quality problems. However, the increased urbanization in the surrounding region has brought new problems. Fontana is at the hub of several major transportation facilities and as such high volumes of automobile and truck traffic –with their associated emissions – flow through and around the City. The General Plan recognizes the importance of air quality within the city, in part by the inclusion of this element in the General Plan.

State Law Requirements

The air quality element is not a required chapter of the general plan. However, by the inclusion of this element in the updated General Plan, the City is acknowledging the existing condition of the quality of the air, and the City's commitment to the improvement the city's residents' quality of life.

Air Quality Mandates

There are a series of governing bodies that monitor air quality as well as enforce and develop policies and standards for the improvement of air quality. The Clean Air Act of 1990 is a federal law that is enforced by the Environmental Protection Agency (EPA). Though the EPA is a part of the federal government, much of the permitting and enforcement for emissions is done at the state and regional level.



In California, regional boards called Air Quality Management Districts have Air Quality Management Plans (AQMPs) that are updated every three years. The City of Fontana falls within the South Coast Air Basin (SCAB or Basin), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality conditions in the SCAB are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

ACHIEVING THE VISION

The Citizens of Fontana are concerned about their health and the health of future residents. As a part of the Community Visioning Process that shaped this general plan update, citizens and city officials identified goals for the future relating to the control of traffic in the City, broadening of the City's economic base to diversify away from industrial uses as a job base, minimization of incompatibilities between adjacent land uses, and preservation of the City's views (which can at times be obscured by air pollution.) All of these goals are related to the policy direction in the Air Quality Element of this General Plan.

COMPONENTS OF THE AIR QUALITY ELEMENT

Regulating Air Quality

Federal Clean Air Act Requirements

Air quality in the Basin is regulated by federal, State, and regional control authorities. The U.S. Environmental Protection Agency (EPA) is involved in local air quality planning through the Federal Clean Air Act (CAA), as amended by the Clean Air Act Amendments of 1990. The CAA requires plans to provide for the implementation of all reasonably available control measures "as expeditiously as practicable," including the adoption of reasonably available control technology for reducing emissions from existing sources. The CAA explicitly encourages emission control innovations in the form of market-based approaches. The SCAQMD is the first local agency in the country to adopt a market-based approach for controlling stationary source emissions of oxides of nitrogen and sulfur and, in accordance with the pending revisions, is proposing additional market-based control measures. Other federal requirements addressed in the revision include mechanisms to track plan implementation and milestone compliance for ozone and carbon monoxide.

In addition, the 1990 amendments to the CAA require the SCAQMD to develop the following demonstrations or plans addressed in the 1994 Air



Quality Management Plan (AQMP) (discussed below): (1) an ozone attainment demonstration, (2) a post-1996 rate-of-progress demonstration, and (3) a PM₁₀ State Implementation Plan (SIP) (required in 1996) that incorporates best available control measures for fugitive sources.

California Clean Air Act Requirements

In addition to federal requirements, the 1994 AQMP meets the California Clean Air Act (CCAA) requirements. According to the CCAA, air pollution control districts must design their air quality attainment plans to achieve a reduction in basin-wide emissions of 5% or more per year (or 15% or more in a 3-year period) for all non-attainment pollutants and their precursors. For emission reduction accounting purposes, the CARB has established a 7-year initial reporting period (1988 to 1994) with reporting intervals every 3 years thereafter. Consequently, the 1994 AQMP was to achieve a 35% reduction for the initial period and a 15% reduction for every subsequent interval.

The CCAA also required that the 1994 AQMP control measures reduce overall population exposure to criteria pollutants, with a 40% reduction due by the end of 1997 and a 50% reduction by the year 2000. This provision is applicable to O₃, CO, and NO₂ in the SCAB. The CCAA further requires the SCAQMD's Governing Board to determine that the 1994 AQMP was a cost-effective strategy that will achieve attainment of the State standards by the earliest practicable date. In addition, the 1994 AQMP must include an assessment of the cost-effectiveness of available and proposed measures and a list of the measures ranked from the least cost-effective to the most cost-effective. In addition to cost-effectiveness, other factors must be considered, including technological feasibility, emissions reduction potential, rates of reduction, public acceptability, and enforceability.

1997/1999 AQMP

At the time this Air Quality element is being prepared, the SCAQMD is in the process of preparing a comprehensive plan update – the Proposed 2003 Air Quality Management Plan for the South Coast Air Basin. The 2003 AQMP seeks to demonstrate attainment with state and federal air quality standards and will incorporate a revised emissions inventory, the latest modeling techniques, and updated control measures remaining from the 1997/1999 SIP and new control measures based on current technology assessments. In the interim, the 1997/1999 AQMP still serves as the fully approved submission into the State Implementation Plan (SIP).

The AQMP is a dynamic document that is to be updated every 3 years. With recent findings by nationally recognized health experts, the new Plan puts greater emphasis on PM₁₀ particulate matter (described further



below.) In fact, the 1997 Plan is the first Plan required by federal law to demonstrate attainment of the federal PM_{10} ambient air quality standards. The 1997 Plan also updates the demonstration of attainment of ozone and carbon monoxide. Additionally, because the Basin came into attainment of the federal nitrogen dioxide standard since the prior AQMP was prepared, the new Plan includes a maintenance plan to assure continued compliance.

Expanding on the control strategies included in the 1994 AQMP, the 1997 Plan projects sufficient emissions reductions to meet all federal criteria pollutant standards within the time frames allowed under the federal Clean Air Act.

Highlights of the 1997 Plan are noted below.

- Use of the most current air quality information (1995), including special particulate matter data from the PM_{10} Technical Enhancement Program;
- Improved emissions inventories, especially for motor vehicles, fugitive dust, and ammonia sources;
- A similar, but fine tuned overall control strategy with continuing emphasis on flexible, alternative approaches including intercredit trading;
- A determination that certain control measures contained in the 1994 AQMP, are infeasible, most notably the future indirect source measures;
- Enhanced modeling for particulates;
- A Maintenance Plan for nitrogen dioxide, and
- An attainment demonstration and State Implementation Plan Revision for PM_{10} .

On January 12, 1999, the U.S. EPA proposed partial approval/disapproval of the 1997 Ozone SIP revisions citing concerns with the ozone control strategy provided in the 1997 AQMP. To address these concerns, the AQMD staff prepared the 1999 Amendment.

The 1999 Amendment provides revisions to the ozone portion of the 1997 AQMP that was submitted to the U.S. EPA as a revision to the South Coast Air Basin portion of the 1994 California Ozone SIP. Specifically, the 1999 Amendment:

- Includes new short-term stationary source control measures,
- Revises the adoption/implementation schedule for 13 short-term volatile organic compounds (VOC) and oxides of nitrogen (NO_x) stationary source control measures from the 1997 Ozone SIP Revision,



- Provides further VOC emission reductions in the near-term, and
- Revises the emission reduction commitments for the long-term control measures in the 1997 Ozone SIP Revision long-term stationary source control measures that the SCAQMD is responsible to implement.

The 1999 Amendment does not revise the PM_{10} portion of the 1997 AQMP, emission inventories, the mobile source portions of the 1997 Ozone SIP Revision, or the ozone attainment demonstration. However, with the new short-term stationary source control measures, additional emission reductions are projected to occur in the near-term.

Pollutant Types

Pollutants emitted into the air from stationary and mobile sources affect the quality of the air around us. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources consist of one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial processing plants. Area sources are widely distributed and produce many small emissions.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are a combination of emissions from automobiles, trucks, and indirect sources. Indirect sources are sources that by themselves may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy. Examples of indirect sources include an office complex or commercial center that generates commuter trips and consumes energy resources through the use of natural gas for space and water heating. Indirect sources also include actions proposed by local governments, such as redevelopment districts and private projects involving the development of either large buildings or tracts. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Federal and State law regulates the air pollutants emitted into the ambient air by stationary and mobile sources. These regulated air pollutants are known as "criteria air pollutants." Primary criteria air pollutants are those that are emitted directly from sources. Carbon monoxide (CO); reactive organic gases (ROG); nitrogen oxides (NOx); sulfur dioxide (SO₂); and most fine particulate matter (PM_{10} , $PM_{2.5}$), including lead (Pb) and fugitive dust; are primary criteria air pollutants. Secondary criteria air pollutants are those pollutants formed by chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen



dioxide (NO_2) are the principal secondary pollutants. Primary pollutants' concentrations decrease as they dissipate, but secondary pollutants reach maximum concentrations at a distance downwind from the original source. Each of these primary and secondary criteria air pollutants and their known health effects is described below.

Carbon Monoxide

Carbon monoxide is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is the interference of normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

Particulate Matter

Particulate matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulate are now recognized. Coarse particles, or PM_{10} , include that portion of the particulate matter with an aerodynamic diameter of 10 microns (i.e., ten one-millionths of a meter or 0.0004 inch) or less. Fine particles, or $\text{PM}_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM_{10} and $\text{PM}_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Fugitive Dust

Fugitive dust poses primarily two public health and safety concerns. The first concern is that of respiratory problems attributable to the suspended particulates in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent (much like sandblasting.)

Lead

Lead in the atmosphere occurs as particulate matter. Sources of lead include the manufacturing of batteries, paint, ink, ceramics, and ammunition, and secondary lead smelters. With the phase-out of leaded gasoline, secondary lead smelters and battery recycling and manufacturing facilities are becoming lead emission sources of greater concern.

Nitrogen Oxides

Nitrogen oxides serve as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric



oxide (NO) and nitrogen dioxide (NO₂). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 part per million (ppm). NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ also contributes to the formation of PM₁₀ and PM_{2.5}.

Ozone

Ozone (O₃) is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds and NO_x (both by-products of the internal combustion engine) react with sunlight. O₃ is present in relatively high concentrations in the SCAB, and the damaging effects of photochemical smog are generally related to the concentrations of O₃. O₃ may pose a health threat to those who already suffer from respiratory diseases as well as healthy people.

Reactive Organic Gases

Reactive organic gases are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG to form secondary pollutants.

Sulfur Dioxide

Sulfur dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO₂. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue.

EXISTING CONDITIONS

According to the 1997 Air Quality Management Plan, the South Coast Air Basin (SCAB) had the worst air quality in the nation. The City of Fontana faces a particularly difficult challenge in improving local air quality due to the concentration of heavy industrial uses in the City and its Sphere. A brief summary of the major contributors to diminished air quality is provided below.



Wind Patterns & City Location

The distinctive climate of Fontana and the South Coast Air Basin (SCAB) is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. Fontana is located toward the northeast portion of the Basin at the foot of the Cajon Pass that separates the San Gabriel Mountains to the west and San Bernardino Mountains to the east.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season. Between the periods of dominant airflow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day.

On most spring and early summer days, the daily air pollutants produced within the SCAB are moved out of the air basin through mountain passes or are lifted upward by the warm, vertical currents produced by the heating of mountain slopes. In those seasons, pollutants within the SCAB are dispersed and transported (often to a distance of 60 miles or more) by ocean air currents during the afternoon. From late summer through the winter months, this flushing is less pronounced because of lighter wind speeds and the earlier appearance of offshore winds.

Because of expansional cooling, temperatures usually decrease with altitude. A reversal of this atmosphere condition, where temperature increases with altitude, is termed an inversion. The inversion effectively keeps the cooler air below from rising. Coupled with the proximity of the mountains, these inversions serve as a cap that hinders pollutant dispersion. Upwind pollution sources, local industry, and high traffic volumes bring pollutants into the City, and when coupled with local meteorological conditions result in some of the worst air quality in the country.

During the winter and fall months, surface high-pressure systems over the Basin, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally have a duration of a few days before predominant meteorological conditions are reestablished. Within the project area Santa Ana winds have a decidedly distinct pattern. Santa Ana winds from a northerly direction pour through the Cajon Pass then follow the Santa Ana River in a southwestward motion direction to the coast. The highest wind speeds



typically occur during the afternoon due to daytime thermal convection caused by surface heating. This convection brings about a downward transfer of momentum from stronger winds aloft. While the maximum wind speed during Santa Ana conditions is undefined, sustained winds of 60 mph with higher gusts are not uncommon in the Fontana area.

Major Sources of Pollution Located Within the City

While much of the poor air quality in the City of Fontana and Inland Empire in general, is due to the transport of pollutants from upwind sources; primarily Los Angeles and Orange Counties, the City also includes some major emissions sources, the foremost of which is from on-road motor vehicles. Area source emissions associated with the trappings of urban life (e.g., space and water heating, landscape maintenance, consumer products, etc.) also add to these emissions. Table 13-1 estimates the emissions associated with both mobile and stationary sources as predicted by the URBEMIS2001 computer model distributed by the SCAQMD.¹ The model addresses only those emissions produced by residents and businesses that operate within the city and does not account for vehicles that only pass through the city. Furthermore, the model does not present the emissions associated with point sources (e.g., factory exhaust stacks) or industrial processes subject to SCAQMD permitting.

Table 13-1
Existing Daily Emissions¹

Source	Pollutants (lb/day)				
	CO	NOx	ROG	SOx	PM ₁₀
Mobile Sources					
Single-family Residential (42,472 du @ 10 trips/du)	74,370.0	9,176.1	6,451.9	39.5	3,397.7
Multi-family Residential (10,553 du @ 7 trips/du)	12,996.3	1,603.5	1,129.5	6.9	593.8
Retail (6,250,860 sq ft @ 49 trips/1,000 sq ft)	44,851.7	5,642.1	3,841.6	23.6	2,057.5
Office (2,714,877 sq ft @ 20 trips/1,000 sq ft)	9,939.5	1,261.0	835.9	5.4	468.0
Industrial (30,091,248 sq ft @ 7 trips/1,000 sq ft)	42,064.8	5,351.9	3,526.2	22.9	1,997.5
Public Use (7,039,296 sq ft @ 20 trips/1,000 sq ft)	21,865.8	2,757.3	1,865.1	11.6	1,010.6

¹ The SCAQMD is currently testing the URBEMIS2002 model at the time of preparation of this Air Quality Element.



**Table 13-1
Existing Daily Emissions ¹**

Source	Pollutants (lb/day)				
	CO	NOx	ROG	SOx	PM ₁₀
Open Space (16,183 acres @ 0.02 trips/acre)	47.4	6.0	14.1	0.0	2.2
Total Mobile Sources	206,135.5	25,797.9	17,664.3	109.9	9,527.3
Area Sources					
Natural Gas	309.8	735.5	56.2	0.0	1.4
Landscape Maintenance	610.5	7.2	72.4	18.4	1.3
Consumer Products	---	---	2,584.4	---	---
Total Area Source	920.3	742.7	2,713.0	18.4	2.7
Total Daily Emissions	207,055.8	26,540.6	20,337.3	128.3	9,530.0

¹ Based on the URBEMIS2001 computer model and assumes year 2003 winter conditions for mobile source emissions and summer conditions for area source emissions.

In addition to mobile and area-source emissions, the City contains a diversified listing of industrial and non-industrial sources, many of which produce vast quantities of air emissions. The appendix for the 2003 AQMP, currently under preparation by the SCAQMD, includes the top 300 producers of NOx and ROG within the Basin as of 1997.

California Steel Industries

California Steel Industries (CSI) is located on 450 acres of the former Kaiser Steel facility. CSI has been in business since 1984, and employs upwards of 1000 people.

California Steel Industries (CSI) does not manufacture steel; rather they specialize in Slab Steel Processing. CSI obtains steel from other sources, and uses powerful equipment to roll, anneal, pickle, and/or galvanize steel slabs. Though CSI does not manufacture steel, there are emissions that result from the processes listed above. CSI has worked with the SCAQMD to meet or exceed emissions standards for slab steel processing.

Slag Pile

The Kaiser Steel Mill created a slag pile, located along the south side of San Bernardino Avenue east of Etiwanda Avenue, during its time of operation. This area consists of a mound of slag and solid wastes comprised of non-metallic by-products of steel processing and consists mainly of calcium, magnesium, and aluminum silicates. Slag is currently being extracted for use in roofing, railroads, concrete, highways, mineral wood insulation, glass manufacture, asphalt manufacture, and as fill. The extraction process may cause fugitive dust



situations that could lead to elevated particulate concentrations in the direct vicinity of the slag pile.

Trucking Facilities

The trucking industry is a major contributor to Fontana's economic base as well as to air pollution within the City. Truck retail sales facilities can be found along Valley Boulevard and warehousing and distribution centers are concentrated in pockets in the City near Interstates 10 and 15 and at Baseline Road. Additional areas along Interstate 15 and Sierra Avenue in north Fontana are planned to allow industrial development. The presence of these businesses attracts trucks that emit a considerable number of air pollutants including nitrous oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and reactive organic compounds. Individually, the trucks and businesses are required to comply with federal, state, and regional air quality management plans, however the cumulative effects of emissions could be of concern.

California Speedway

The California Speedway, located within the City's sphere of influence off San Bernardino Avenue and Cherry Avenue, is a host on the NASCAR and CART racing circuit. Approximately 12 races are held at the Speedway each year, and these races are a major regional attraction. The major contributor to air quality deficiencies during racing events does not stem from the race cars themselves, so much as from the heavy traffic generated by race fans.

FUTURE CONDITIONS

As the City continues to grow under the General Plan, so will the number of emissions sources. As with the existing setting, the foremost source of these emissions is from on-road motor vehicles. However, the number of area source emissions will also increase over time. Table 13-2 estimates the emissions associated with both mobile and stationary sources as predicted by the URBEMIS2001 computer model distributed by the SCAQMD. As with the analysis of the existing setting, the model addresses only those emissions produced by residents and businesses that operate within the city and does not account for vehicles that only pass through the city. Furthermore, the model does not present the emissions associated with point sources (e.g., factory exhaust stacks) or industrial processes subject to SCAQMD permitting. Note that most emissions show a dramatic reduction from the existing values even though local growth could add considerably to the overall land use and daily vehicle trips. This is due to increased vehicle emissions standards



coupled with the continual replacement of older, higher polluting vehicles with newer, cleaner units. On the other hand, PM₁₀ emissions show a marked increase over time. This is because the vast majority of PM₁₀ emissions are created by the suspension of entrained road dust into the atmosphere. Additionally, even though vehicle engines become more efficient, some of the PM₁₀ is produced from abrasion of such things as brake and clutch linings and tire wear, none of which are subject to vehicle exhaust emissions regulations.

Table 13-2
Year 2030 Daily Emissions¹

Source	Pollutants (lb/day)				
	CO	NOx	ROG	SOx	PM ₁₀
Mobile Sources					
Single-family Residential (53,920 du @ 10 trips/du)	12,024.4	1,192.7	1,012.7	65.4	4,303.0
Multi-family Residential (12,366 du @ 7 trips/du)	1,931.6	191.6	163.8	10.5	691.2
Retail (17,338,453 sq ft @ 49 trips/1,000 sq ft)	15,571.7	1,578.9	1,274.4	93.5	5,584.7
Office (4,547,882 sq ft @ 20 trips/1,000 sq ft)	2,272.3	228.9	182.5	12.0	829.5
Industrial (56,857,702 sq ft @ 7 trips/1,000 sq ft)	10,174.8	1,023.0	821.2	51.0	3,735.9
Public Use (5,601,816 sq ft @ 20 trips/1,000 sq ft)	3,134.6	317.3	256.2	18.2	1,130.0
Open Space (2,678 acres @ 0.02 trip/acre)	1.3	0.1	1.1	0.0	0.5
Total Mobile Sources	45,110.7	4,532.5	3,711.9	250.6	16,274.8
Area Sources					
Natural Gas	427.7	1,020.1	77.6	0.0	1.9
Landscape Maintenance	777.5	9.1	92.1	23.5	1.7
Consumer Products	---	---	3,243.3	---	---
Total Area Source	1,205.2	1,029.2	3,413.0	23.5	3.6
Total Daily Emissions	46,315.9	5,561.7	7,124.9	274.1	16,278.4

¹ Based on the URBEMIS2001 computer model and assumes year 2030 winter conditions for mobile source emissions and summer conditions for area source emissions.



ISSUES, GOALS, POLICIES & ACTIONS

ISSUE #1 COST/BENEFIT OF IMPROVED AIR QUALITY

What is the cost/benefit of Improved Air Quality?

Discussion: At the surface it would seem that a reduction in emissions and corresponding improvement in air quality requires a large outlay on the part of the City, its residents, and industries with little or no monetary benefit. The Draft 2003 AQMP estimates that the cost-effectiveness for stationary source measures ranges from \$2,000 to as high as \$20,100 per ton of pollutant reduced.

However, the quality of the air we breathe directly affects our health, environment, economy, and our quality of life. Just as we are affected by air pollution, so too are plants and animals. There are also numerous impacts to our economy including lost workdays due to illness, a desire on the part of business to locate in areas with a healthy environment, and increased expenses from medical costs. Pollutants may also lower visibility and cause damage to property.

In conformance with the requirements of the Clean Air Act Amendments, the USEPA has prepared a monetary cost/benefit analysis related to implementation requirements. By the year 2010, the USEPA estimates that its emissions reductions programs would cost approximately \$27 billion dollars. However, the programs are estimated to result in a savings benefit of \$110 billion dollars for a net benefit of \$83 billion dollars. While these values are for the nation as a whole, a net benefit ratio of about 4:1 is noted and a similar ratio could be expected for the City of Fontana and its residents.

Another direct cost/benefit issue relates to federal funding. Areas that do not meet the federal air quality standards may lose eligibility for federal funding for road improvement and other projects that require federal or California Department of Transportation approval. Cleaner air also yields benefits to ecological systems.

GOAL #1:

Air quality improvements are achieved in our City while continued economic growth has been sustained.

Policies:

- 1) Support the Air Quality Management District in implementing cost effective measures that enhance surrounding jurisdictions ability to meet or exceed adopted air quality standards.



- 2) Preferential treatment or permit streamlining shall be provided for those industrial/commercial projects that go beyond BACT or emissions reduction measures that go beyond those required by the SCAQMD for permitting.
- 3) Preferential treatment or permit streamlining shall be provided for those residential projects that incorporate emissions reduction measures that go beyond those suggested by the SCAQMD for residential development.
- 4) Educate the public on the economic benefits of reduced air pollution.

Actions:

- 1) Seek the placement of a city staff member on an Air Quality improvement committee as a means of influencing SCAQMD policies and programs.
- 2) Create permit streamlining procedures relating to conformity with emissions standards.
- 3) Ensure that City Planning Staff that review environmental studies are aware of current air quality reduction methods and are open to new technology. Make a conscience effort to facilitate those projects that go beyond the requisite rules and regulations to reduce air emissions.
- 4) Participate in creating a multi-jurisdictional air quality plan that works in concert with the existing air quality management plans, in order to jointly improve air quality without unduly burdening individual jurisdictions.
- 5) Establish a City air quality advisory committee that works to educate the public on air quality issues and stimulate local businesses to reduce emissions and contribute to overall air quality.

**ISSUE #2: AIR QUALITY AND THE LAND USE & TRANSPORTATION CONNECTION
(REDUCING VEHICLE MILES TRAVELED)**

How can the City promote emissions reductions through land use and transportation strategies?

Discussion: The largest source of pollution in the City is from the vehicles trips that both emanate from within and pass through the City. If these trips are reduced in either number or length (or both), emissions are reduced accordingly.

In the past, the SCAQMD pushed for a jobs/housing balance as a measure to reduce mobile source emissions. Projects located within the Basin should be consistent with the goals and projections included in the



AQMP. The 1991 AQMP stressed a balance of job and housing within each subarea of the Basin with the understanding that if there was a balance, local residents could fill local jobs thereby reducing the need for extended travel consistency analysis. Ideal ratios were as projected in the Growth Management Plan (1989) and an area was considered to be in balance if the projected jobs/housing ratio was projected at 1.22 in 2010. (The west San Bernardino Valley area was considered to be among the more jobs poor/housing rich urban areas with a projected jobs/housing balance of 0.99 in the year 1984. The area was expected to improve on this ratio was expected to reaching 1.16 in the year 2010.) The jobs-housing ratio that could be achieved based on the mid-point capacity of this General Plan land use plan is 1.93 jobs per household.

Ideally, each city in the greater Southern California area would attain the optimal balance that would reduce the need for extended commuter trips. In reality, market forces dictating housing and job development may or may not allow this balance to be achieved. Furthermore, even a balance of jobs to housing in a given jurisdiction does not ensure that local residents fill those jobs.

The 1994 AQMP recognized this and focused on reduction in vehicle trips through transportation control measures, alternatives to vehicle use, and desirability of mixed land use areas. Transportation Demand Management (TDM) can help unclog freeways and reduce commute times, thereby improving air quality.

TDM strategies help reduce work-related trips by encouraging individuals who now drive alone to form carpools and vanpools, and to take the bus or light rail. Alternatively, workers may work longer hours and so eliminate a trip to the office once or twice a week. Two other TDM strategies that eliminate work trips are telecommuting and work-at-home programs. When individuals must drive, TDM calls for changes in their work schedules to avoid peak traffic periods. A similar TDM strategy encourages large trucks to operate at night. TDM strategies for reducing trips that are not work related are also important. TDM alone, however, is not the answer. Transit improvements and facility development must accompany these changes. Changing transportation demand also requires facility development, such as that already in place at Fontana's Metrolink station, including park-n-ride lots, bus turnouts, off-site parking, and facilities for bicycles and pedestrians.

As the automobile is the major source of air pollution in the region, the City recognizes the importance of reducing the number of vehicle trips and miles traveled. Policies in this section are not intended to create additional regulation, but to create incentives to reduce vehicle trips, encourage alternative schedules, and conform to policies created by regional governments.



GOAL #2

Our City has a diverse and efficiently operated ground transportation system that generates the minimum feasible pollutants.

Policies:

- 1) The City shall seek to integrate land use and transportation planning to the maximum extent practical.
- 2) Mixed-use development should be planned for and incentivized to develop in our City.
- 3) Employers locating in our City should be encouraged to develop trip reduction plans to promote alternative work schedules, ridesharing, telecommuting, and work-at-home programs, employee education and preferential parking.
- 4) Incentives, regulations, and Transportation Demand Management systems shall be developed in cooperation with surrounding jurisdictions to eliminate vehicle trips that would otherwise be made.
- 5) Merchants in our City should be assisted in getting their customers to shift from single occupancy vehicles to transit, carpools, bicycles, or foot.
- 6) Developers in our community shall work to reduce vehicle trips and total vehicle miles traveled in projects that are approved here.
- 7) The City should manage parking supply to discourage auto use, while ensuring that economic development goals will not be sacrificed.
- 8) Efforts to expand bus, rail, and other forms of transit in the portion of the South Coast Air Basin within San Bernardino County shall be cooperatively pursued with Omnitrans, MTA and other transit providers.
- 9) The City should invest in clean fuel systems on new local government fleet vehicles as their service life ends, and promote similar actions by other units of government.
- 10) The City shall manage traffic flow through signal synchronization, while coordinating with and permitting the free flow of mass transit vehicles, as a way to achieve enhanced mobility.
- 11) Traffic signals should be synchronized throughout the City and with those of adjoining cities and the California Department of Transportation.



- 12) Traffic signals shall be constructed and improved with channelization and Automated Traffic Surveillance and Control systems at appropriate intersections.
- 13) Traffic hazards, delays, and idle time should be diminished through highway and roadway maintenance, rapid emergency response, debris removal, and elimination of at-grade railroad crossings.
- 14) Heavy trucks shall be discouraged from excessive idling both at the roadside and during unloading/loading operations.
- 15) The City should provide incentives for business owners to schedule deliveries at off-peak traffic periods.

Actions:

- 1) Establish and administer mixed-use development standards and guidelines, especially for combining residential, office, and commercial uses.
- 2) Establish performance standards for clustering residential areas near commercial services where mixed use is not feasible.
- 3) Work with SANBAG to develop guidelines for the location and design of land uses that are sensitive to air pollution.
- 4) Zone or rezone properties so that sensitive land uses (e.g., residential, educational) are not located within 200 feet of any freeway.
- 5) Establish procedures to ensure that developers disclose vehicle emissions concentrations (i.e., CO) during the environmental review process for all development proximate to intersections that are to operate at level of service (LOS) "D" or worse.
- 6) Establish and implement incentives, regulations, and Transportation Demand Management programs in concert with other jurisdictions in the South Coast Air Basin and, especially, within SANBAG.
- 7) Develop and offer incentives to developers in our community to include bicycle and pedestrian pathways in development here in order to encourage non-motorized trips.
- 8) Develop and promote market based incentives and disincentives to relieve peak hour/peak direction congestion within highly congested travel corridors.
- 9) Establish modified work schedules for City employees that reduce peak period auto travel and conduct promotional program for similar action by large employers.



- 10) Establish and maintain a program for participation in achieving increased designation, construction, and operation of HOV lanes on freeways in San Bernardino, Los Angeles, Orange, and Riverside counties.
- 11) Work with local industry and warehousing facilities to reduce excessive idling at these facilities.
- 12) Work with local law enforcement to promote the citing of unmanned vehicles observed idling at the roadside.

ISSUE #3 ENERGY CONSERVATION AND EMISSIONS

How can the City reduce emissions associated with energy consumption?

Discussion: While mobile sources and industry are the greatest sources of pollution in the City, other all sources of pollution should be reduced as feasible if the Basin is to attain compliance with the air quality standards in the requisite time frame. One way to reduce these emissions that does show tangible economic benefits is through recycling and conservation. Efforts to recycle wastes can reduce the amount of pollutants emitted from the production of new materials while preserving raw materials. Energy efficient design and conservation measures minimize the impacts of not only the consumption of, but also the production of energy sources.

GOAL #3:

A concerted effort to reduce energy consumption in our City results in reduced emissions.

Policies:

- 1) Source reduction, recycling, and other appropriate measures to reduce the dependence on and processing of new raw materials shall be promoted.
- 2) Energy conservation shall be achieved through a combination of incentives and regulations for private and public developments.
- 3) The City shall promote and provide incentives for the incorporation of energy-efficient design elements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.
- 4) The City shall promote and provide incentives for the use of energy efficient building materials/methods that reduce emissions.



- 5) The City shall promote and provide incentives for the use of efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.
- 6) Centrally heated facilities to utilize automated time clocks or occupant sensors to control heating shall be required in facilities of a size and character to yield a positive return on investment.
- 7) The City shall require residential building construction to comply with energy use guidelines detailed in Title 24 of the California Administrative Code and shall promote and provide incentives for residential building construction that goes beyond the guidelines detailed in Title 24.
- 8) Stationary pollution sources shall be managed to prevent the release of toxic pollutants through:
 - Design features
 - Operating procedures
 - Preventive maintenance
 - Operator training and
 - Emergency response planning.
- 9) Stationary air pollution sources shall comply with applicable air district rules and control measures.
- 10) Any project that exceeds allowable emissions, as established by the SCAQMD, shall mitigate its anticipated emissions to the extent reasonably feasible.
- 11) Alternative energy sources development shall be promoted in Fontana.

Actions:

- 1) Work with the SCAQMD to develop cost effective energy conservation standards to be incorporated into new development.
- 2) Work with alternative energy source providers to provide services in Fontana.
- 3) Establish a process, including identification of priorities, to phase in energy conservation improvements through the annual budget process.
- 4) Adopt incentives and regulations to enact energy conservation requirements (e.g., energy efficient appliances) for private developers.



- 5) Adopt building codes amendments to require that all new single-family residential units include front and rear exterior outlets to facilitate the use of electric landscape maintenance equipment.
- 6) Adopt incentives and regulations to reduce emissions from commercial and residential space and water heating equipment.
- 7) Adopt incentives and regulations to require the use of energy efficient swimming pool equipment (heaters and pumps).
- 8) Review the City's waste recycling program to determine if further energy conservation features are feasible. Pursue those so identified.
- 9) Establish procedures for City staff to specify the use of recycled materials (e.g., paper) both for in-house projects and for submittal by contractors when engaged in City' projects.

ISSUE #4 PARTICULATE EMISSIONS AND FUGITIVE DUST

How can the City reduce particulate emissions associated with the generation of fugitive dust?

Discussion: The SCAB exceeds both the PM_{10} and $PM_{2.5}$ standards. While much of this particulate is associated with exhaust emissions, dust generated by both on- and off-road travel adds substantially to these emission values. Table 13-1 includes an existing estimate of 9,527.3 pounds per day of PM_{10} associated with on-road travel. Of this value, 8,762.2 pounds per day are associated with entrained road dust that is "kicked-up" from vehicle tires. While most vehicle emissions decrease over time due to more stringent tailpipe standards, by the year 2030, PM_{10} emissions are expected to increase to 16,274.8 pounds per day. Of this value, 15,077.4 pounds are directly attributed to entrained road dust, which is not a function of vehicle emissions controls. Additionally, construction activities that involve demolition or soil movement can raise particulate matter. Because the Basin fails to achieve the requisite particulate standards, all sources of particulate pollution should be reduced as feasible. This is particularly significant for the City of Fontana because of the significant land area in the City and its sphere that remains to be developed.

**GOAL #4:**

The minimum practicable particulate emissions are released in our City from construction and operation of roads and buildings.

Policies:

- 1) Particulate emissions from roads, parking lots, construction sites and agricultural lands shall be kept at the minimum feasible level.
- 2) Emissions from building materials and construction methods that generate excessive pollutants shall be kept at the minimum feasible level.

Actions:

- 1) Incorporate the provisions of SCAQMD Rule 403 (Dust Control) into City land use administration rules and procedures.
- 2) Establish grading and building permitting procedures so that all construction involving demolition or earth movement reduces fugitive dust emissions through the appropriate techniques (e.g., wetting).
- 3) Establish grading permit and field management procedures to ensure that large-scale earth movement (e.g., over 10 acres per day) performs at levels more demanding than required by SCAQMD Rule 403.
- 4) Establish and budget for a rotating street maintenance program so that all City streets are adequately maintained and damaged paving is repaired as soon as possible.
- 5) Establish permitting procedures and field supervision practices to ensure that roadway construction/repair does not force vehicles onto unpaved surfaces either through alternate routing or through pre-paving of off-road surfaces.
- 6) Establish land use administration and building permit procedures, which ensure that all proposed permanent parking areas are paved.
- 7) Ensure that all City streets are adequately maintained. Repair damaged paving as soon as possible.
- 8) Establish grading permit and field monitoring procedures that require large-scale construction (e.g., over 10 acres) to pave or place gravel on un-paved parking surfaces during the construction effort.



- 9) Pave all roadway shoulders where vehicles may park or wait.
- 10) Adopt, schedule and fund a street-sweeping program in those areas of the City in which such a program does not exist.

City of Fontana, State of California GENERAL PLAN LAND USE MAP

Adopted: October 21, 2003

Last Revised: NA

GENERAL PLAN LAND USE LEGEND

RESIDENTIAL DESIGNATIONS

- R-E Residential Estates (2 du/ac)
- R-PC Residential Planned Community (3.0-6.4 du/ac)
- R-SF Single Family Residential (2.1-5 du/ac)
- R-M Medium Density Residential (5.1-7.6 du/ac for single-family detached product type; 7.7-12 du/ac for single family attached or multiple family product type)
- R-MF Multi Family Residential (12.1-24 du/ac)

COMMERCIAL DESIGNATIONS

- C-C Community Commercial (0.1-1.0 FAR)
- C-G General Commercial (0.1-1.0 FAR)
- RMU Regional Mixed Use (0.1-1.0 FAR for non-residential; 12-24 du/acre for residential)

INDUSTRIAL DESIGNATIONS

- I-L Light Industrial (0.1-0.6)
- I-G General Industrial (0.1-0.6 FAR)

PUBLIC DESIGNATIONS

- P-PF Public Facilities
- P-R Recreational Facilities
- P-UC Public Utility Corridors

OPEN SPACE DESIGNATIONS

- OS Open Space

SPECIFIC PLAN LEGEND

- #1 Southridge Village
- #2 Rancho Fontana
- #3 Walnut Village
- #4 Rescinded
- #5 Southwest Industrial Park
- #6 Northgate
- #7 Rescinded
- #8 West End
- #9 Fontana Gateway
- #10 Rescinded
- #11 South Park
- #12 Hunter's Ridge
- #13 Empire Center
- #14 Rescinded
- #15 California Landings
- #16 Sierra Lakes
- #17 Westgate
- #18 Summit Heights
- #19 Coyote Canyon
- #20 Citrus Heights

- City Limit
- Sphere of Influence
- Parcel
- Easement
- City Address Block
- Specific Plans

- C Civic Use
- CH City Hall
- F Fire Station
- H Hospital
- P Police Dept.
- S School

- Activity Center Overlay (0.1-1.0 FAR for non-residential uses; 7.7-24 du/acre for residential uses)

- Downtown Overlay

- Boulevard Overlay (0.1-1.0 FAR for non-residential uses; 7.7-24 du/acre for residential uses)



Scale
1: 24000
1 inch = 2000 feet
0 2000 4000 feet

General Plan Amendments
Resolution No. Adoption Date
03-162 October 21, 2003

CITY OF
RANCHO CUCAMONGA

CITY OF RIALTO

CITY OF RANCHO CUCAMONGA

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